## **PUBLIC VERSION - NON PUBLIC DATA HAS BEEN EXCISED**

# In the Matter of CenterPoint Energy Natural Gas Innovation Act (NGIA) Innovation Plan

**Reply Comments of CenterPoint Energy** 

EXHIBIT E: REVISED PORTFOLIO

(Combined workbook of Petition Exhibits N and P, updated to reflect revised Plan)

Docket No. G-008/M-23-215

15-Mar-23

## **PUBLIC VERSION**

Exhibit E is filed separately as an Excel file. CenterPoint Energy has designated information in Exhibit E as trade secret. The information meets the definition of trade secret in Minn. Stat. § 13.37, subd. 1(b), as follows: (1) the information was supplied by CenterPoint Energy, the affected organization; (2) we have taken all reasonable efforts to maintain the secrecy of the information, including protecting it from disclosure in this proceeding; and (3) the protected information contains a complex spreadsheet calculation tool developed by ICF for CenterPoint Energy's use, which derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means, by other persons who could obtain economic value from its disclosure or use. Note that in addition to certain non-public information, there is proprietary value in the calculations in the tool and interaction between cells, so CenterPoint Energy is filing a public version of this Exhibit, with certain information redacted and certain calculations removed.



# NGIA Portfolio Summary

				Draft Innov	ation Plan Portfoli	Summary .																
Primary Innovation Category	# Pilot	Pilot Size Selected fo Portfolio	or Reductions, Achiev	GHG Emission , Cumulative Level ved by Year 5	Lifetime GI	Ť	Utility Costs Towards N without Portfolio	Costs	u	Itility Costs Towards - with Portfolio C between Pilots	Costs Split by Cost	Lifetime Utility Emission Reduction Cost - with Portfolio Costs	Total (Net) Pilot Cost Perspective Emission Reduction Cost - with Portfolio Costs	Upfront Equipment and Installation Costs	Share of Portfolio Costs Allocated to	Net Lifetime Utility Costs by Pilot (includes costs outside 5 year period, as well as commodity cost savings for all years of pilot life, not just within 5				Total Net Costs with Portfolio		Equipment and
			tCO2e/yr	% in Portfolio		% in Portfolio	\$ %	in Portfolio	_	\$		\$/tCO2e	\$/tCO2e	\$/tCO2e	this Pilot	year NGIA window)	Portfolio Costs	1	Total Net Costs	1	1	Costs only
	1 RNG Proposal - Anaerobic Digestion of Organic Materials	None		0%	-	0%		0%		\$ -	0%	#DIV/0!	#DIV/0!	#DIV/0!	\$ -	\$0	\$0		\$0	\$0		\$0
	2 RNG Proposal - Anaerobic Digestion of East Metro Food Waste	В	9,241	11%	92,414	8%	5,856,724	6%		6,520,485	6%	\$190	\$139	\$185	\$ 663,761	\$16,874,730	\$17,538,491		\$12,153,095	\$12,816,856		\$17,132,589
Renewable Natural Gas	3 RNG Archetype - Wastewater Resource Recovery Facility	В	2,656	3%	26,556	2%	3,654,524	3%	\$	4,068,702	4%	\$317	\$265	\$295	\$ 414,179	\$8,005,946	\$8,420,125		\$6,628,834	\$7,043,012		\$7,837,457
(RNG)	4 RNG Archetype - Dairy Manure	В	1,979	2%	19,790	2%	3,982,161	4%	423,134	5 4,433,472	4%	\$461	\$409	\$433	\$ 451,311	\$8,668,974	\$9,120,285	\$ 83,367,472	\$7,642,700	\$8,094,011		\$8,570,462
	5 RNG Archetype - Food Waste	В	25,474	31%	254,739	23%	17,584,578	17%	5	19,577,493	19%	\$159	\$107	\$160	\$ 1,992,915	\$38,482,478	\$40,475,393		\$25,272,428	\$27,265,343		\$40,670,011
	6 RNG Archetype - Landfill Gas	В	12,205	15%	122,049	11%	10,950,684	10%	_	12,191,759	12%	\$208	\$156	\$206	\$ 1,241,075	\$24,110,594	\$25,351,669		\$17,781,502	\$19,022,578		\$25,137,695
Power-to-	7 Green Hydrogen Blending into Natural Gas Distribution System	В	1,400	2%	27,993	2%	4,173,901	4%	\$	4,646,943	4%	\$824	\$770	\$265	\$ 473,041	\$22,580,664	\$23,053,705		\$21,090,559	\$21,563,601		\$7,414,364
Hydrogen	8 Green Hydrogen Archetype for Industrial or Large Commercial Facility	Α	2,817	3%	56,330	5%	1,039,041	1%	107,196	1,156,798	1%	-\$12	\$871	\$175	\$ 117,758	-\$776,797	-\$659,039	\$ 2,720,474	\$48,943,556	\$49,061,313		\$9,835,832
	9 Industrial Methane and Refrigerant Leak Reduction Program	A	6,753	8%	33,763	3%	1,120,803	1%	5	1,247,828	1%	\$34	-\$24	\$17	\$ 127,024	\$1,005,621	\$1,132,645		-\$949,755	-\$822,731		\$582,305
Carbon Capture	10 Urban Tree Carbon Offset Program	Α	1,000	1%	4,500	0%	295,780	0%	5	\$ 329,301	0%	\$67	\$12	\$49	\$ 33,522	\$266,387	\$299,909		\$21,437	\$54,958		\$219,226
Carbon Capture	11 Carbon Capture Archetype for Industrial or Large Commercial Facility	A	2,419	3%	50,865	4%	2,368,665	2%	\$	2,637,113	2%	\$66	\$303	\$60	\$ 268,448	\$3,111,065	\$3,379,513		\$15,129,574	\$15,398,023		\$3,036,224
	13 Carbon Capture Rebates for Commercial Buildings	A	1,165	1%	23,757	2%	550,040	1%		612,377	1%	\$1	-\$23	\$226	\$ 62,338	-\$31,857	\$30,481		-\$617,258	-\$554,920		\$5,371,918
	14 New Networked Geothermal Systems Pilot	С	2,421	3%	107,355	9%	10,442,470	10%	\$	11,625,947	11%	\$393	\$402	\$232	\$ 1,183,478	\$41,040,700	\$42,224,178		\$41,947,284	\$43,130,762		\$24,879,156
District Energy	15 Decarbonizing Existing District Energy Systems	В	5,401	7%	124,030	11%	537,839	1%		\$ 598,794	1%	-\$28	-\$34	\$40	\$ 60,955	-\$3,480,860	-\$3,419,905		-\$4,224,461	-\$4,163,506		\$4,933,706
	16 New District Energy System	В	1,339	2%	40,882	4%	193,692	0%	5	\$ 215,644	0%	-\$19	\$371	\$463	\$ 21,952	-\$806,364	-\$784,412		\$15,148,784	\$15,170,736		\$18,932,519
	17 Industrial Electrification Incentive Program	A	543	1%	11,896	1%	453,086	0%	-	\$ 504,436	0%	\$10	\$2	\$32	\$ 51,350	\$61,758	\$113,108		-\$27,132	\$24,217		\$374,861
Strategic Electrification	18 Commercial hybrid heating pilot	В	1,633	2%	25,609	2%	6,349,045	6%	5	7,068,602	7%	\$217	\$204	\$100	\$ 719,557	\$4,825,812	\$5,545,369		\$4,496,484	\$5,216,041		\$2,555,827
	19 Residential deep energy retrofit + electric ASHP pilot (with gas backup)	В	1,985	2%	66,760	6%	12,231,409	12%	5	13,617,633	13%	\$159	\$390	\$383	\$ 1,386,224	\$9,203,949	\$10,590,172		\$24,672,280	\$26,058,504		\$25,536,912
	20 Small/medium business GHG audit pilot	В	241	0%	4,380	0%	1,793,719	2%	5	1,997,007	2%	\$387	\$376	\$346	\$ 203,288	\$1,490,893	\$1,694,181		\$1,442,579	\$1,645,867		\$1,516,278
	21 Residential Gas Heat Pump	Α	16	0%	235	0%	342,001	0%		\$ 380,761	0%	\$1,464	\$1,358	\$707	\$ 38,760	\$305,063	\$343,823		\$280,305	\$319,065		\$165,994
Energy Efficiency	22 Gas Heat Pump for Commercial Buildings	Α	144	0%	2,154	0%	673,172	1%	5	749,464	1%	\$295	\$207	\$152	\$ 76,293	\$558,837	\$635,129		\$370,502	\$446,795		\$328,003
	24 Solar Thermal Heating for C&I	None	-	0%		0%	-	0%		\$ -	0%	\$0	\$0	\$0	\$ -	\$0	\$0		\$0	\$0		\$0
	25 Industrial and Large Commercial GHG Audit Pilot	Α	1,716	2%	35,560	3%	853,737	1%	5	\$ 950,494	1%	-\$7	-\$51	\$38	\$ 96,757	-\$338,994	-\$242,238		-\$1,899,861	-\$1,803,104		\$1,362,270
	Total Pilot Portfolio		82,545	100%	1,131,617	100%	\$ 85,447,069	81%		\$ 95,131,053	90%	\$163	\$216	\$182		\$ 175,158,598	3 \$ 184,842,581		\$ 235,303,436	\$ 244,987,419		\$ 206,393,610
	Additional Portfolio Administrative Costs	N/A	N/A	N/A	N/A	N/A	\$ 9,683,983	9%		\$ -	0%						\$ -			\$ -		\$ -
Additional Portfolio Costs	R&D Projects - Low Carbon Fuels (15%)	15%	N/A	N/A	N/A	N/A	\$ 1,585,569	2%	5	1,585,569	1.5%						\$ 1,585,569			\$ 1,585,569		\$ 1,585,569
	R&D Projects - Other (85%)	85%	N/A	N/A	N/A	N/A	\$ 8,984,893	9%		\$ 8,984,893	8.5%						\$ 8,984,893			\$ 8,984,893		\$ 8,984,893
	Total Portfolio (incl. R&D)		82,545		1,131,617		\$ 105,701,515	100%		\$ 105,701,515	100%	\$173	\$226	\$192			\$ 195,413,043	i		\$ 255,557,881		\$ 216,964,071

Estimated NGIA Cost Cap (including bonus money): \$105,704,618.35

These calculated values represent CenterPoint Energy's revised NGIA portfolio. The changes have been described in Reply Comments. Some changes involve different pilot sizes being selected in column 0 above (or cancelled Hennepin County RNG project being left out of portfolio). Other changes have been made within the Measure Profiles, which are also included in this tab (what was Exhibit N in the original Petition). Changes within the measure profiles might increase or decease participation for a specific pilot, or adjust other aspects of the pilot quantification.

Low-Carbon Fuels Percentage:

5.1.26%

More specifically the pilot profile tabs in this file with changes are CNP02, CNP06, CNP07, CNP13, and CNP20.

			Pliets				0.	rolew of Key R	iecults						Cost-lifed	tiveness Calcula	tion Results						_			
egra C	utomer Class/ Sector:	Measure Code	Flot Name	Pilot Slav	Participation	Total Utility Incremental Costs		GHG trepac	ol (Net) Plict cts - Including vironmental temponent		Perspective	UCT Benefits	UCT Costs	UCT Net Benefit RIN	d Becefits	RIM Costs	RIM Net Becefit	PCT Becofts		PCT Not Benefit	ист	RIM	PCT	ucr	ROM	PCT
_	Doc	Reference from Measure Workbook of Delete Sow	Do not Delete Row		Units Vary by Plict	653	61 1	CO2el	Error	IS/ISCO2el	IS/ICO2#1	isi	851	ISI Do no	t Delete Be	251	155	isi	Do not De		2024 - 2028		2024 -2028 not Delete		28 2024 2025 2026 2027 2028	
	Br & Res	CNPOS	RNS Proposal - Anaerobic Digerston of Organic Materials	A		\$ 1,817,629	5 635,187	3,666 \$	(3,525,250)	502	271	s -	\$ 1,817,629	5 (1,817,629) S		\$ 160,000 1	(965, 292)	5 -	8 -	1 .	-					· · ·
	Str. S. Nov.	CMPOS	RNS Proposal - Anaerobic Digestion of Organic Moteroids		45,460			28,221 \$	(8,025,854)	265	254	\$ 100	\$ 7,467,229			\$ 2,280,620 (		\$	\$ 10 miles	8						
	SELECTION CO.	CNPCS	Mich Proposal - Anaerobic Digresson of Crigoric Materials Mich Proposal - Anaerobic Digresson of East Metro Pool World	e A		5 14,124,229		56,662 S 17,603 S	(2,60,70)	267	306	1	5 10,129,239	5 (14329,229) 5 5 (12726,004) 5			(0,000,000)		1 1	1						
0	Str. & Nes	CNPOS	MNS Proposal - Anaerobic Digestion of East Metro Pood Words	- 1	95,865	5 16,876,790	5 5,896,724	93,656 \$	(13,153,090)	203	102		\$ 36,876,790	5 (36,876,790) 5		5 5,140,829 1	(5,360,829)	8 -	4	4						
	Str. S. Nes	CNP02	RNS Proposal - Anaerobic Digestion of East Metro Food Worke	c		\$ 88,129,512		184,629 \$	(20,686,283)	179	128	\$	\$ 10,129,552				(10,000,000)		\$ 10 miles	\$ 100						
	SEA NO.	CNPOS	Mill Anthrope - Wadewater Resource Recovery Facility Mill Anthrope - Wadewater Resource Recovery Facility		10,000		5 861,726	5,111 S 26,156 S	(1,404,670)	80	352 250	1	5 1,891,892			5 765,056 ( 5 8,268,230 (	(200,004)	1	1 1	1 1						
	SEA NO.	CNPGS	MIG. Archetype - Wadewater Resource Recovery Racillty	e e		5 44,674,486		155,105 \$	(9,420,610)	200	290 229	1	5 40,679,489			5 18,176,766 1			1 1	1						
	St & No.	CMPOS	MNS Anthetige - Daily Manure	A.		\$ 4,000,000		5,000 \$	(0.886,295)	466	393		\$ 4,000,000				(1,804,076)		8							
	Str. B. Nes	CNPGE	MNS.Anderige - Daily Manure MNS.Anderige - Daily Manure			\$ 3,660,070		19,790 \$	(7,643,793)	408	386	\$	\$ 8,666,676				(3,386,756)	\$	\$ 10 miles	\$ 100						
	SEA NO.	CNPOS	RNS Anthetige - Davy Manure RNS Anthetige - Food Warze	c A		\$ 40,793,616		98,952 S 11,179 S	(31,602,000)	63	380 133	1 1	5 40,793,414	5 (40,733,634) 5 5 (2,362,336) 5		5 16,700,250 ( 5 877,161 (	(16,700,260)	1 1	1 1	1						
	St. & Sec	CNPOS	MNS.Anthetige - Food Worde	- 1		5 35,662,676		154,799 \$	(25,272,426)	251	30	1		5 (88,082,676) 5			(15,700,660)		1	1						
	SEA NO.	CMPOS	MNS.Exthetige - Food Words	c		\$ 86,785,696		179,993 \$	(34,762,655)	200	98	\$	\$ 10,700,000			\$ 35,874,706 (			\$ 100	8						
	SEA NO.	CNPOS	RNS Ardenge - Landfill Gas RNS Ardenge - Landfill Gas			5 10,620,721 5 20,110,100		48,494 S 122,009 S	(30,000,400) (37,793,502)	200	167	5	\$ 18,426,721 \$ 26,130,990	5 (11,630,721) S		5 5,550,879	(3,564,879) (3,775,286)	5	100							
	SELECTION CO.	CAPON	MICS Andreigne - Landfell Gas. MICS Andreigne - Landfell Gas.			5 20,110,100		122,009 S 180,191 S	(17,791,503)	200	160	1	5 30,130,590			5 5775,296 1			1 1	1						
	Str. & Nes	CNPOF	Green Hydrogen Mending Into Natural Gar. Distribution System	A.		\$ 8,225,288	S REALING	5,500 \$	(8,404,283)	1,609	1,901	\$ 240,255	5 8,446,546	5 (9,221,200) 5	200,255	5 3,255,814 5	(2,008,508)	4 .	4		0.01	0.11		044		
	Str. & Nes	CNPOF	Green Hydragen Mending Into Natural Gar, Drid Hauton System			\$ 22,580,660		27,993 \$	(21,010,1116)	807	793		\$ 21,792,999		1,301,375		(1,784,479)	s -	\$ -	8	6.09	0.36			4.00	
	cki	CNPOS	Green Hydragen Archetype for Industrial or Sarge Commercial Facility	Α.		\$ (776,795)		56,330 \$	(00,000,000)	(14)	359	5 2,417,796	\$ 1,640,550		2,417,896	5 3,500,000 1	(925,580)		\$ 53,821,622		147	0.70	0.15	171 181		01
	CBI	CMPOS	Green Hydragen Archetype for Industrial or Large Commercial Facility Green Hydragen Archetype for Industrial or Large Commercial Facility			5 (3,580,770)		112,661 5	(161,000,000)	(14)	853			1,000,000 5					5 103,750,781		110	0.79	0.35			
	CBI	CNPOR	Industrial Methane and Refrigerant Seak Reduction Program	A.	90	\$ 1,000,621	5 1,130,808	33,763 5	949,750	30	(20)	\$ 413,786	\$ 1,421,407	5 (1,000,621) 5	615,786	5 1,700,186 1	(1,284,800)	5 294,069	\$ 163,000	\$ 200,758	0.29	0.30	1.62	0.50 0.47	0.88 0.86	140 158 -
	CBI	CNPOS	Industrial Michane and Refrigerant seak Reduction Program			\$ 1,879,194		84,408 \$	2,867,010	22	(14)			5 (1,879,194) 5	101,301		(2,121,100)			\$ 200,076	0.33	0.27			00 0.00 0.00 0.25 0.25 0.27	
	CBI Skilletes	CNPOS	Industrial Methane and Refrigerant seal Reduction Program Urban Tree Carbon Offset Program		250 6300		5 4300334	4300 S	4,080,667 (20,685)	20	(16)	\$ 1,830,229	5 1,300,000	5 (8,611,762) 5 5 (206,887) 5	1,890,219	5 4,550,600 1	(4,790,890)	\$ 1,220,867	\$ 804,094	\$ 400,700	0.85	0.28	1.52	0.00 0.01 0.00 0.00 0.	H OM OM OM OM OM	1 145 158 15
	St & Sec	CNF10	Urban Time Carbon Offset Program Urban Time Carbon Offset Program	â	1,000		5 201,780	4100 S 8000 S	4.288	10	101	1 1	3 500,007	1 (00,07) 1		5 003,607	(364,607)	1 1	1 1	1 1						
	St & Sec	CNP30	Littan free Carbon Offset Program	ē	18,000			18,000 \$	10,799	53	00	\$	\$ 524,066				(100,000)			100						
	CBI	CNP11	Carbon Capture Anthetype for Industrial or Large Commercial Facility	A		\$ 8,111,069		10,891 \$	(10,129,570)	61	297	\$ 100	\$ 3,111,000		100,812	\$ 8,110,065 (	(2,366,250)		5 14,255,000			0.30			1 1 10 11	
	cki	CNF11	Carbon Capture Archetype for Industrial or Large Commercial Facility Carbon Capture Archetype for Industrial or Large Commercial Facility			5 4,000,000		100,790 S	(80,000,070)	50	295	1 1	5 4,000,000		1895,660		(4,129,669)		5 20,510,000			0.0				
	CBI	CMPIN	Decardorcana Bolicina Dictoral Service Systems	A .		5 (1.806.476)		42.000 S	2,217,990	(26)	100	1 1096400	5 1,290,203		1,090,600 1						2.02		0.00	140	0.00	4.86
	cki	CNP15	Decarbonizing Booking Dichric Energy Systems	- 1	2	\$ (3,480,860)	5 2,130,000	20,000 \$	4,220,660	(29)	(14)	\$ 5,880,000	\$ 2,02,28	S AMORNO S	1,551,156	5 4,340,907 1	(427,789)	\$ 3,390,329	\$ 5,255,527	\$ (5,862,768)	2.62	690	0.87	- 250 ER	- 88 68	- 0.86 01
	CBI	CMP15	Decarbonizing biology District Energy Systems New Online Energy System	c		\$ (4,000,440)		M,000 S	5,950,100	(27)	(10)	\$ 8,536,790		5 4799,000 5	8,536,780 1			\$ 4,960,870		\$ (8,804,828)	2.99	0.89	0.86	- 28 24 28 -	- 080 080 087 -	0.88 01
	Strikens Strikens	CNP36	New Ordered Seeing System New Ordered Seeing System	2		5 (100,100)		20,600 S 60,892 S	(7,717,070)	(20)	278	5 720,790	5 350,000			5 900,496 ( 5 5,796,202 (					2.16	0.79	0.07	286 239	0.07 0.00	- 607 -
	St. & Sec	CNP36	New District Energy System	č		\$ (1,176,760)	5 30,440,470	40,120 \$	(20,887,697)	(20)	365	5 1,990,600	\$ 829,862	1 13500 5	1,996,600 1	5 2,660,656 5	(463,823)	\$ 1,660,555	\$ 23,790,960	\$ (22,040,886)	2.66	0.83	0.07	- 286 259 246 -	- 0.87 0.88 0.80 -	- 0.07 0
	CBI	CNP17	Industrial Electrification Incentive Program	A		\$ 60,798		15,896 \$	27,182		(2)	\$ 560,000		5 (61,790) 5	182,018 1						690		0.37		5 BM 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.87
	cla	CMP17 CMP17	Industrial Electrification monthly Program Industrial Electrification monthly Program			5 (00,360) 5 (200,360)		21,790 S 21,693 S	201,670	(0)	.00	\$ 1,130,907 \$ 1,000,800	\$ 1,004,708	5 69,266 5	1,111,967 (	5 1,000,070 1 5 2,000,000 1	(101,110) (101,100)	5 695,660	5 1,767,181 5 2,609,801	\$ (3,328,629) \$ (3,723,696)	107	040	0.86		047 048	- 0.07 0.0
	CBI	CMP18	Industrial Electrification Incentive Program  Commencial hybrid heating print	a a	72	5 2,802,000	5 1,234,796 5 100,836	10,279 5	(2,780,260)	220	(13)	5 491,191		5 200,265 S 5 (2,822,036) S		5 4,100,107 (					0.19	0.07			0 030 037 038 038 037	
	cki	CNP18	Commercial hybrid heating print	- 1	135	\$ 4,625,632	5 195,492	25,609 \$	(4,496,480)	188	176	\$ 1,000,000	5 6,309,395		1,00,09	5 7,084,175 1	(3,760,796)	\$ 800,257	\$ 1,007,000	\$ (3,007,367)	0.22	0.38		0.30 0.32 0.21 0.20 0.	81.0 91.0 91.0 91.0 81.0 21	0.08 0.00 0.0
	cki	CMP18	Commercial hybrid heating print	c		\$ 6,729,611		27,940 \$	(4,241,701)	177	165		\$ 8,685,278				(8,112,617)				0.29	0.19			E 0.00 0.00 0.10 0.00 0.10	
	St & No.	CAPIN	Reidental deep energy retraft + electric XXVP plot (with gat backup) Reidental deep energy retraft + electric XXVP plot (with gat backup)	2	218	5 4,990,990		80,780 S	(12,701,090)	109	881	\$ 931,806 \$ 1,865,608				5 4,676,170 1 5 12,622,629 1	(3,754,870)		\$ 10,110,112 \$ 20,262,226		0.16 0.17	0.10	0.00	- 0.06 0.06 0.20 0. - 0.07 0.07 0.20 0.		
	St & Sec	CMF18	Readestandeep energy retarist + electric XXVP plot (with gas backup)	č		5 15,440,964		100,100 5	(36,645,460)	194	366	5 2,700,602				5 30,560,660 1		5 2,362,838		\$ (28,083,000)	617	0.35	0.00			
	CBI	CNP20	Small/medium business SMS audit print	A.		5 1,212,939		3,500 \$	(3,250,260)	358	807			5 (1,212,126 5			(3,886,610)			\$ (345,780)	611	0.33	0.69		9 031 031 030 030 038	
	cki	CNF30 CNF30	Small/medium business delta audit pilot Small/medium business delta audit pilot			5 1,000,000	5 4,300,005 5 8,962,298	4,000 S	(1,642,876)	500 529	329	5 100,076	\$ 1,000,000	5 (1,000,000) 5 5 (1,728,007) 5	200,076 5	5 1,000,000 1	(1,626,002)	5 590,570		\$ (282,226) \$ (228,676)	011	0.30	0.88		9 012 011 011 010 009 00 012 011 011 011 009	
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	CBI	CNP22	Cast Heat Pump for Commercial Buildings	A		5 590,007	5 1,500,005	2,194 \$	(170,102)	259	172	5 135,450			110,600 1	5 796,000 1	(489,729)				018			0.37	- 628	
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	CBI	CNF26	Solar Thermal Heating for CBI	Ä		5 40,354	5 675,172	7,687 \$	(455,836)	3	10 E	5 332,862			112,160	5 600,700		\$ 180,887			0.89	0.35	0.16		T 040 041 031 049 047	036 036 03
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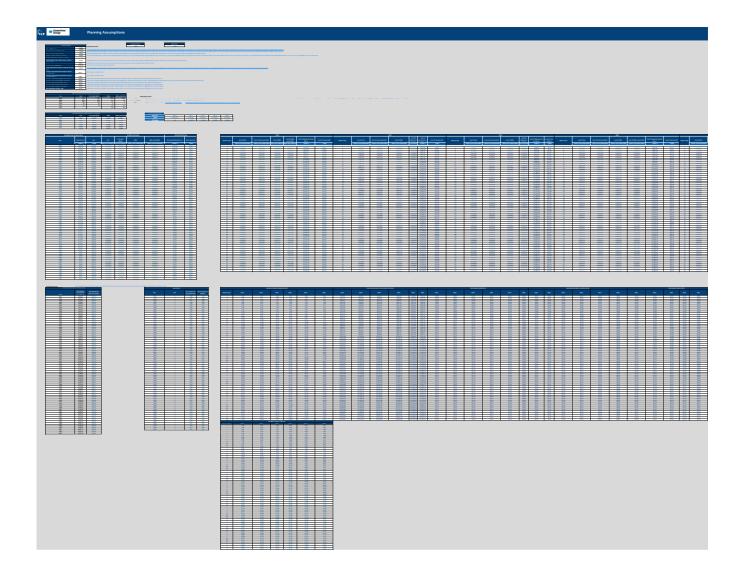
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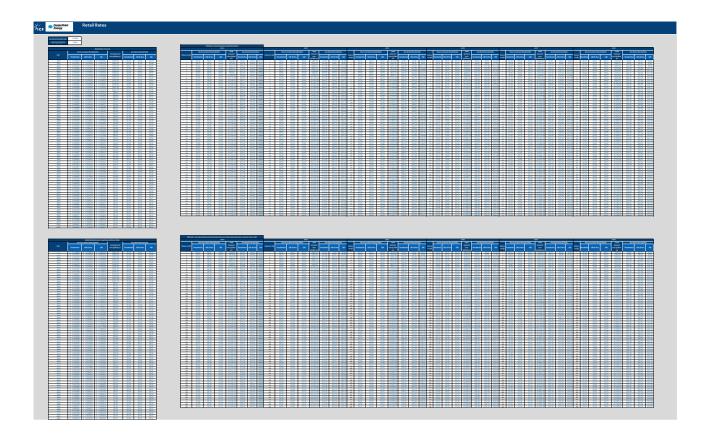


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	te Impact Calculations												
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NZ		Click here to go back to the list of all pilots				NGIA Pilot Profiles Workbook	
FICF	CNPO1 - RNG Proposal - Anaerobic Digestion of Organic Materials	March 15th 2024 Update: Nothing has been ch	anged in this tab, but the Henne	pin County RNG project	has been cancelled. So thi	is is no longer selected for the NGIA porfolio.	
	Pilot Project Code:	CNP01					
	Pilot Project Name:	RNG Proposal - Anaerobic Digestion of Organic					
		Materials					
	Customer Class/ Sector:	C&I & Res					
	Low-Income Community Benefit?	N					
	Target Area:	Territory-wide	0.1		46		
	Primary Innovative Resource Category:	Renewable Natural Gas (RNG)	Select primary Innovation Cat	egory. Otners can be lister	a nere:		
	Pilot Description:						
	CenterPoint Energy proposes to buy renewable natural gas ("RNG"), including both						
	Centerr office chergy proposes to buy renewable natural gas ( KNC ), including both	the commonty and environmental attributes, from	Triefiliepiii Courty s ariaerobic u	igestion ( AD ) facility, will	ciris currently under devel	opnen.	
DESCRIPTION							
	Overview of Program/ Implementation Approach:						
	This project is expected to be operational in 2026.						
	The terms of the RNG purchase contract would be determined at a later date; all figi Environmental attributes would be retired on behalf of CenterPoint Energy custome	ures in this spreadsheet are estimates for the purp	ose of this analysis.				
	Environmental attributes would be retired on behalf of CenterFoint Energy custome	ns.					
	Other Comments / Information:						
	Assumes offtake from developer or other entity, not capital investment from CNP.						
KEY PILOT-SPECIFIC							
KEY PILOT-SPECIFIC	INPUTS:						
	Pilot Year	Year 1	Year 2	Year 3	Year 4	Year 5	
	Calendar Year	200		2026	2027	2028	
	Participating Units, Size A			8,288		Dekatherms of gas purchased as offtake in sing	gle year. Incremental units added, annual (not cumulative).
	Participating Units, Size B			41,440		Note this represents the annual DNC (Oth) and	r) that will be purchased through a multi-year agreement (project life defined below) starting in this year.
	Participating Units, Size C			82,880		Note, this represents the airidal rivo (billy year	r triat will be purchased through a mulu-year agreement (project life denined below) starting in this year.
	Calculations & Other Explanation:	Units above are to annual dekatherms of RNG a 2026 is the RFI respondent's updated target for a	supply (shown only for the year	supply contract starts)			
	Calculations & Other Explanation.	2026 is the RFI respondent's appaaled larger for t	algester kind setup.				
		Year 1	Year 2	Year 3	Year 4	Year 5	Size A (10% of Dth of RNG generated, from Hennepin County's response to our Data Request)
	Cumulative RNG Supply (Dth/year), Size	A -	-	8,288	8,288	8,288	8288
	Cumulative RNG Supply (Dth/year), Size	В -	-	41,440	41,440	41,440	Size B (50% of Dth of RNG generated, from Hennepin County's response to our Data Request)
	Cumulative RNG Supply (Dth/year), Size	С -	-	82,880	82,880	82,880	41440
NUMBER OF						8	Size C(100% of Dth of RNG generated, from Hennepin County's response to our Data Request)
PARTICIPANTS	Assumed Number of GHG Verifications Required, Size A	<b>1</b> :	0 0	1	1	1	02000
	Assumed Number of GHG Verifications Required, Size E		0 0	i	1	i	
	Assumed Number of GHG Verifications Required, Size C	<b>:</b>	0 0	1	1	1	
						Updated estimate of MMBTU of RNG to be ge	enerated, from Hennepin County: 82879.6 MMBtu/yr
		Year 1	Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
	Annual Total Utility Incremental Cost, Size A	\$ -	\$ 10,094 \$		208,896 \$		These incremental utility costs are what will count against the NGIA budget cap for this measure and will be used in the Utility Cost, and Non
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C	\$ -	\$ 10,094 \$	852,823 \$	861,646 \$	871,453 total cost per year 1,696,877 total cost per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of utility admin costs to run pilot, any incentive funding to support project deployment, and/or the utility's annual revenue requirement for capital investments made on select pilots.
	Affilial Total Outry Incremental Cost, Size C	-	\$ 10,094 \$	1,000,740 \$	1,677,364 4	1,696,677 total cost per year	
		Year 1	Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
	Fixed O&M Cost, Size A	\$ -	\$ 10,094 \$		208,896 \$	211,115 total cost per year	Fixed O&M Cost is the result of adding up Total Project Delivery, Advertising and Promotions, Utility Administration, Trade Ally Incentives, and
	Fixed O&M Cost, Size B	\$ -	\$ 10,094 \$	852,823 \$	861,646 \$	871,453 total cost per year	Workforce Development of Market Transformation Cost
	Fixed O&M Cost, Size C	5 -	\$ 10,094 \$	1,658,748 \$	1,677,584 \$	1,696,877 total cost per year	
		Year 1	Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
	Total Project Delivery, Size A		\$ 10,094 \$	208,082 \$	208,896 \$	211.115 per year	Total internal and external project delivery
	Total Project Delivery, Size B		\$ 10,094 \$		861,646 \$		
	Total Project Delivery, Size C	\$ -	\$ 10,094 \$	1,658,748 \$	1,677,584 \$	1,696,877 per year	
	Internal Project Delivery, Size A	Year 1	Year 2 \$ 10,094 \$	Year 3 10,397 \$	Year 4 10,709 \$	Year 5 USD (Nominal) Cost Unit:	CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Internal Project Delivery, Size A Internal Project Delivery, Size B	\$ -	\$ 10,094 \$		10,709 \$		Civin stain. These costs are sub-set of the utility. Fixed OoM Lost Category above.
	Internal Project Delivery, Size C		\$ 10,094 \$	10,397 \$	10,709 \$	11,030 per year	
		Year 1	Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
	External Project Delivery, Size A		\$ - \$	197,685 \$	198,187 \$		External vendor costs would include direct install costs where CNP reimburses the vendor. These costs are sub-set of the Utility "Fixed O&M  Cost" extensive these
	External Project Delivery, Size B External Project Delivery, Size C		\$ - \$ \$ - \$	842,426 \$ 1,648,352 \$	850,937 \$ 1,666,875 \$		Cost" category above.
	External Project Delivery, SIZE C	-	- 5	1,048,352 \$	1,000,875 \$	i,000,04/   per year	
		Year 1	Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
	Advertising and Promotions, Size A	\$ -	\$ - \$	- \$	- \$	- per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Advertising and Promotions, Size B	\$ -	\$ - \$	- \$	- \$	- per year	
	Advertising and Promotions, Size C	\$ -	\$ - \$	- \$	- \$	- per year	
		Year 1	Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
		rear 1	redf∠	Tear 5	TEST 4	rear 3 USD (NORMAN) COST UNIT:	

	Allocation of General Portfolio Costs, Size B							per year	1
	Allocation of General Portfolio Costs, Size C							per year	
		Year 1	Year	2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	_
	Trade Ally Incentives, Size A Trade Ally Incentives, Size B	\$	- \$ - \$	- \$ - \$	- \$	- 9	\$ - \$ -	per year per year	If applicable, include here the annual amount of trade ally incentives (e.g. midstream program)
	Trade Ally Incentives, Size C	\$	- \$	- \$	- \$	- \$	\$ -	per year	
		Year 1	Year	2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Workforce Development or Market Transformation Cost, Size A Workforce Development or Market Transformation Cost, Size B	\$	- \$ - \$	- \$	- \$	- \$	\$ -	per year	These costs are sub-set of the Utility 'Fixed O&M Cost' category above.
	Workforce Development or Market Transformation Cost, Size B Workforce Development or Market Transformation Cost, Size C	\$	- \$	- \$	- \$	- 3	\$ -	per year per year	
		Year 1	Year	,	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Other Fixed O&M Cost, Size A	\$	- \$	- \$	- \$			per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
UTILITY PILOT	Other Fixed O&M Cost, Size B Other Fixed O&M Cost, Size C	\$	- \$ - \$	- \$ - \$	- \$ - \$	- \$ - s	\$ <u>-</u>	per year per year	
COSTS		Year 1	Year		Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	<del>-</del>
	Total utility capital investment, Size A	Year 1	- \$	- \$	Year 3	Year 4	\$ Year 5	per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the
	Total utility capital investment, Size B Total utility capital investment, Size C	\$	- \$	- \$	- \$	- 9	\$ -	per year per year	incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital investments (shown below).
	Total utility capital investment, size C	•	- 3	- 3	- 3	-   1	• -		
	Est. Annual Revenue Requirement for Capital Projects, Size A	Year 1	Year	2 _   ¢	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as
	Est. Annual Revenue Requirement for Capital Projects, Size B	\$	- \$	- \$	- \$	- 9	\$ -	per year per year	well as the utility. Fixed O&M Costs' captured above. This revenue requirement is calculated from the magnitude & timing of capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
	Est. Annual Revenue Requirement for Capital Projects, Size C	\$	- \$	- \$	- \$	-   \$	\$ -	per year	Laptured above, based on expected measure me (and depreciation time period), as wen as the dumy's return on investment.
			6						
	Est. Total Revenue Requirement for Capital Projects, Size A	Total \$	USD (Nominal)  - per year	Cost Unit:					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected measure
	Est. Total Revenue Requirement for Capital Projects, Size B	\$	- per year						life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
	Est. Total Revenue Requirement for Capital Projects, Size C	\$	- per year						
	Incentives, Size A	Year 1	Year :	-   6	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc). Do not include
	Incentives, Size B	\$	- \$	- \$	- \$	- 9	\$ -	per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership, incentives will be used
	Incentives, Size C	\$	- \$	- \$	- \$	- \$	\$ <u>-</u>	per year	in the Darticipant Cost tests for the MGIA auslisation criteria
		Year 1	Year		Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	7
	Incentives per Participant, Size A Incentives per Participant, Size B	#DIV/O! #DIV/O!	#DIV/		-	#DIV/0! #DIV/0!	#DIV/0! #DIV/0!	per participant per year per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size C	#DIV/0!	#DIV/	D! \$	-	#DIV/O!	#DIV/0!	per participant per year	
	Calculations & Other Explanation:								
	RNG Contract Purchase Cost	Year 1	24.00 \$		Year 3 24.00 \$	Year 4 24.00 \$	Year 5 \$ 24.00	per Dth (1 Dth = 1 MMBtu)	
	RNG Contract Purchase Cost	Year 1		24.00 \$		Year 4 24.00 \$	Year 5 \$ 24.00	per Dth (1 Dth = 1 MMBtu)	Note – in original Exhibit N these were based on a fixed value for Year 1, but in this combined file they have been linked
	RNG Contract Purchase Cost	Year 1					<b>Year 5</b> \$ 24.00	per Dth (1 Dth = 1 MMBtu)	to the Planning Assumptions' from Exhibit P so that commodity price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1
	Geologic Gas Cost	t: \$	24.00 \$	24.00 \$ 4.86 \$	24.00 \$ 4.60 \$	24.00 \$	\$ 24.00 \$ 4.13	per Dth	to the Planning Assumptions' from Exhibit P so that commodity price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filing.
	Geologic Gas Cost Incremental Fuel Cost Incremental Fuel Cost - Average over Contract Life (based on contract stark	t: \$ t: \$ t: \$ t: \$	24.00 \$ 5.13 \$ 18.87 \$	24.00 \$ 4.86 \$ 19.14 \$	24.00 \$ 4.60 \$ 19.40 \$	24.00 \$ 4.36 \$ 19.64 \$	\$ 24.00 \$ 4.15 \$ 19.81	per Dth 7 per Dth	to the Planning Assumptions' from Exhibit P so that commodity price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1
	Geologic Gas Cost Incremental Fuel Cost	t: \$ t: \$ t: \$ t: \$	24.00 \$	24.00 \$ 4.86 \$	24.00 \$ 4.60 \$	24.00 \$ 4.36 \$ 19.64 \$	\$ 24.00 \$ 4.15 \$ 19.81	per Dth	to the Planning Assumptions' from Exhibit P so that commodity price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filing.
	Geologic Gas Cost Incremental Fuel Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)	t \$ t \$ t \$ t \$ t \$ t \$	24.00 \$ 5.13 \$ 18.87 \$ 19.63 \$ \$/Dth, for all Dth	4.86 \$ 19.14 \$ 19.73 \$	24.00 \$ 4.60 \$ 19.40 \$	24.00 \$ 4.36 \$ 19.64 \$	\$ 24.00 \$ 4.15 \$ 19.81	per Dth 7 per Dth	to the Planning Assumptions' from Exhibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne
	Geologic Gas Cost Incremental Fuel Cost Incremental Fuel Cost - Average over Contract Life (based on contract stark	t S t S t S t S	24.00 \$ 5.13 \$ 18.87 \$ 19.63 \$	4.86 \$ 19.14 \$ 19.73 \$	24.00 \$ 4.60 \$ 19.40 \$	24.00 \$ 4.36 \$ 19.64 \$	\$ 24.00 \$ 4.15 \$ 19.81	per Dth 7 per Dth	to the Planning Assumptions' from Exhibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne
	Geologic Gas Cost Incremental Fuel Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year) M-RETS RTC On-going Registration Costs	t S t S t S t S	24.00 \$  5.13 \$ 18.87 \$ 19.63 \$ \$/Dth, for all Dt \$0.05 each year	4.86 \$ 19.14 \$ 19.73 \$	24.00 \$ 4.60 \$ 19.40 \$	24.00 \$ 4.36 \$ 19.64 \$	\$ 24.00 \$ 4.15 \$ 19.81	3. per Dth 7. per Dth 7. per Dth	to the Planning Assumptions' from Exhibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne
	Geologic Gas Cost Incremental Fuel Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year) M-RETS RTC On-going Registration Costs	t S t S t S t S	24.00 \$  5.13 \$ 18.87 \$ 19.63 \$ \$/Dth, for all Dt \$0.05 each year	4.86 \$ 19.14 \$ 19.73 \$	24.00 \$ 4.60 \$ 19.40 \$	24.00 \$ 4.36 \$ 19.64 \$	\$ 24.00 \$ 4.15 \$ 19.81	Per Dth Toper Dth Toper Dth Toper Dth  Note – in original Exhibit N these were just values, but in this combined file they have	to the Planning Assumptions' from Exhibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne
	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year) M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs	t \$ t \$ t \$ t \$ t \$	2400 \$ 513 \$ 18.87 \$ 19.63 \$ \$/Oth, for all Dti \$0.05 each year \$1,500 One time upfro	24.00 \$  4.86 \$ 19.14 \$ 19.73 \$ a produced	24.00 \$ 4.60 \$ 19.40 \$	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$	\$ 4.15 \$ 19.8°	Note – in original Exhibit N these were just values, but in this combined file they have been linked to the Planning Assumptions'	to the Planning Assumptions' from Exhibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne
	Geologic Gas Cost Incremental Fuel Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year) M-RETS RTC On-going Registration Costs	t \$ t \$ t \$ t \$ t \$	24.00 \$  5.13 \$ 18.87 \$ 19.63 \$ \$/Dth, for all Dt \$0.05 each year	4.86 \$ 19.14 \$ 19.73 \$	2400 \$ 4.60 \$ 19.40 \$ 19.80 \$	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$	\$ 4.15 \$ 19.8°	Per Dth Toper Dth Toper Dth Toper Dth  Note – in original Exhibit N these were just values, but in this combined file they have	to the Planning Assumptions' from Exhibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne
	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs  Escalation rate in gas commodity costs	ts S  ts S  t S  ts S  ts S  ts S  ts S  ts S  ts S	24.00 \$ 513 \$ 18.87 \$ 19.63 \$ \$/Dth, for all Dti \$0.05 each year \$1.500 One time upfro	4.86 \$ 19.14 \$ 19.73 \$ a produced out	2400 \$ 460 \$ 19.40 \$ 19.80 \$	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$  -5.250%	\$ 4.15 \$ 19.8°	Note – in original Exhibit N these were just values, but in this combined file they have been linked to the Planning Assumptions'	to the Planning Assumptions' from Exhibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne
	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year) M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs	ts S  ts S  t S  ts S  ts S  ts S  ts S  ts S  ts S	2400 \$ 513 \$ 18.87 \$ 19.63 \$ \$/Oth, for all Dti \$0.05 each year \$1,500 One time upfro	4.86 \$ 19.14 \$ 19.73 \$ a produced out	2400 \$ 4.60 \$ 19.40 \$ 19.80 \$	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$  -5.250%	\$ 4.15 \$ 19.8°	Note – in original Exhibit N these were just values, but in this combined file they have been linked to the Planning Assumptions'	to the Planning Assumptions' from Exhibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne
	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs  Escalation rate in gas commodity costs	t S t S t S t S	2400 \$  513 \$ 18.87 \$ 19.63 \$ \$//bth, for all Dt \$0.05 each year \$1,500 One time upfro  -5.250%	2400 \$  486 \$ 19.14 \$ 19.73 \$ a produced at	2400 \$ 460 \$ 19.40 \$ 19.80 \$	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$  -5.250%  1,644,806 project verification	\$ 413 \$ 19.8 \$ 19.8	per Dth 7 per Dth 7 per Dth 7 per Dth Note - in original Exhibit N these were just values, but in this combined file they have been linked to the Planning Assumptions'	to the Planning Assumptions' from Exhibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne
	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)  M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs  Project Verification Costs  Total Pilot Upfront Costs, Size A	ts S  ts S  t S  ts S  ts S  ts S  ts S  ts S  ts S	2400 \$  513 \$ 18.87 \$ 19.63 \$ 5/Dth, for all Dt \$005 each year \$1,500 One time upfro  -5.250%  \$35,000 \$/year  Year	2400 \$  486 \$ 19.14 \$ 19.73 \$ a produced at	2400 \$ 460 \$ 19.40 \$ 19.80 \$  -5.250%  \$ 4-F or other cost for the cos	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$  -5.250%  0.444,806  project verification  Year 4	\$ 24.00 \$ 415 \$ 19.81 \$ 19.82 -5.250	Note - in original Exhibit N these were just values, but in this combined file they have been linked to the Planning Assumptions' from Exhibit P  USD (Nominal) Cost Unit:	to the Planning Assumptions' from Exhibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that net Assumes incremental Cost from year 5 is unchanged for remaining years of supply contract.
	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs  Escalation rate in gas commodity costs	t S t S t S t S	24.00 \$  513 \$ 18.87 \$ 19.63 \$ \$/Dth, for all Dti \$0.05 each year \$1.500 One time upfro  -5.250% \$35,000 \$/year	4.86 \$ 19.14 \$ 19.73 \$ 19.70duced at	2400 \$ 460 \$ 1940 \$ 1980 \$	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$  -5.250% 1,644,806 project verification	\$ 24.00 \$ 19.81 \$ 19.82 \$ 19.85 \$ 19.85 \$ 19.85	per Dth 7 per Dth 7 per Dth 7 per Dth 8 per Dth 8 per Dth 8 per Dth 8 per Dth 9 per Dt	to the Planning Assumptions' from Schibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs  Escalation rate in gas commodity costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B	E S S S S S S S S S S S S S S S S S S S	2400 \$  533 \$ 18.87 \$ 19.63 \$ \$//bth, for all Dt \$0.05 each year \$1,500 One time upfro  -5.250%  \$35,000 \$/year  Year 196 \$ 196 \$ 196 \$	4.86 \$ 19.14 \$ 19.73 \$ 19.70 duced out    Green- 197 \$	4.60 \$ 19.40 \$ 19.80 \$  -5.250%  \$ -E or other cost for 1  Year 3 198 \$ 198 \$	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$  -5.250%  L644,806 project verification  Year 4 198 \$ 198 \$	\$ 24.00 \$ 4.10 \$ 19.8° \$ 19.8° \$ 19.8° \$ 1919 \$ 1919	Der Dth  Note – in original Exhibit N these were just values, but in this combined file they have been linked to the 'Planning Assumptions' from Exhibit P  USD (Nominal) Cost Unit:  Jer participant Jer participant	to the Planning Assumptions' from Schibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital implements the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital implements the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital implements the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital implements the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital implements and the property above.) This costs for exceeding the pilot (specifically non-utility capital implements and pilot specifically non-utility capital imp
	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs  Escalation rate in gas commodity costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A	t S t S t S t S	2400 \$  533 \$ 18.87 \$ 19.63 \$ \$/Oth, for all Dt \$0.05 each year \$1500 One time upfro  -5.250%  \$35,000 \$/year  Year	4.86 \$ 19.14 \$ 19.73 \$ 19.70 duced out    Green- 197 \$	2400 \$ 460 \$ 19.40 \$ 19.80 \$  -5.250%  \$ 4-F or other cost for the cos	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$  -5.250%  L644,806 project verification  Year 4 198 8	\$ 24.00 \$ 19.81 \$ 19.82 \$ 19.85 \$ 19.85 \$ 19.85	Note - in original Exhibit N these were just values, but in this combined file they have been linked to the Planning Assumptions'     USD (Nominal) Cost Unit:	to the Planning Assumptions' from Schibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year I Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility increntives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not
	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)  M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size S Total Pilot Upfront Costs, Size A	E S S S S S S S S S S S S S S S S S S S	2400 \$  533 \$ 18.87 \$ 19.63 \$ \$//bth, for all Dt \$0.05 each year \$1,500 One time upfro  -5.250%  \$35,000 \$/year  Year 196 \$ 196 \$ 196 \$	4.86 \$ 19.14 \$ 19.73 \$ 19.70 duced out    Green- 197 \$	4.60 \$ 19.40 \$ 19.80 \$  -5.250%  \$ -E or other cost for 1  Year 3 198 \$ 198 \$	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$  -5.250%  L644,806 project verification  Year 4 198 \$ 198 \$	\$ 24.00 \$ 4.10 \$ 19.8° \$ 19.8° \$ 19.8° \$ 1919 \$ 1919	Note - in original Exhibit N these were just values, but in this combined file they have been inited to the Planning Assumptions'	to the Planning Assumptions' from Schibit P so that commodity price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filing.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs  Escalation rate in gas commodity costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A	E S S S S S S S S S S S S S S S S S S S	2400 \$  533 \$ 18.87 \$ 19.63 \$ \$//bth, for all Dt \$0.05 each year \$1,500 One time upfro  -5.250%  \$35,000 \$/year  Year 196 \$ 196 \$ 196 \$	4.86 \$ 19.14 \$ 19.73 \$ 19.70 duced out    Green- 197 \$	4.60 \$ 19.40 \$ 19.80 \$  -5.250%  \$ -E or other cost for 1  Year 3 198 \$ 198 \$	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$  -5.250%  L644,806 project verification  Year 4 198 \$ 198 \$	\$ 24.00 \$ 4.10 \$ 19.8° \$ 19.8° \$ 19.8° \$ 1919 \$ 1919	Note - in original Exhibit N these were just values, but in this combined file they have been linked to the Planning Assumptions'   I be practicipant   I be practicipant   I be practicipant   I be practicipant   I be preparticipant   I be p	to the Planning Assumptions' from Schibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year I Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility increntives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not
	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs  Escalation rate in gas commodity costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size C  Third Party Funding, Size A	E S S S S S S S S S S S S S S S S S S S	2400 \$  533 \$ 18.87 \$ 19.63 \$ \$//bth, for all Dt \$0.05 each year \$1,500 One time upfro  -5.250%  \$35,000 \$/year  Year 196 \$ 196 \$ 196 \$	4.86 \$ 19.14 \$ 19.73 \$ 19.70 duced at t	4.60 \$ 19.40 \$ 19.80 \$  -5.250%  \$ -E or other cost for 1  Year 3 198 \$ 198 \$	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$  -5.250%  L644,806 project verification  Year 4 198 \$ 198 \$	\$ 24.00 \$ 4.10 \$ 19.8° \$ 19.8° \$ 19.8° \$ 1919 \$ 1919	Note - in original Exhibit N these were just values, but in this combined file they have been linked to the Planning Assumptions'   If the combined file they have been linked to the Planning Assumptions'   If the combined file they have been linked to the Planning Assumptions'   If the combined file they have been linked to the Planning Assumptions'   USD (Nominal) Cost Unit:   Per participant   USD (Nominal) Cost Unit:   Per participant	to the Planning Assumptions' from Schibit P so that commodify price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year I Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility increntives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not
TOTAL AND DIRECT	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs  Escalation rate in gas commodity costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:	Year 1  S  Year 1  S  Year 1  S  S  Year 1	2400 \$  513 \$ 18.67 \$ 19.63 \$ \$//bth, for all Dth \$0.05 each year \$1,500 One time up/for  -5,250%  \$35,000 \$//year  Year  190 \$ 190	4.86 \$ 19.14 \$ 19.73 \$ 19.70 duced at t	2400 \$ 4.60 \$ 19.40 \$ 19.80 \$  19.80 \$  -5.250%   Year 3  198 \$ 198 \$  Year 3  - \$ - \$ - \$	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$  19.85 \$  -5.250%  Froject verification  Year 4  198 \$ 198 \$ 198 \$ 7  Year 4  - \$ - \$ - \$	\$ 24.00 \$ 19.8 \$ 19.8 \$ 19.8 \$ 19.8 \$ 19.8 \$ 19.9 \$ 19.9	Note - in original Exhibit N these were just values, but in this combined file they have been linked to the Planning Assumptions'   Tom Exhibit P	to the Planning Assumptions' from Schibit P so that commodity price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year I Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
PARTICIPANT PILOT	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)  M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:	Year 1  S  Year 1  S  Year 1  S  S  Year 1	2400 \$  513 \$ 18.67 \$ 19.63 \$ \$//bth, for all Dth \$0.05 each year \$1,500 One time up/for  -5,250%  \$35,000 \$//year  Year  190 \$ 190	4.86 \$ 19.14 \$ 19.73 \$ 19.70 duced at t	2400 \$ 4.60 \$ 19.40 \$ 19.80 \$  19.80 \$  -5.250%   Year 3  198 \$ 198 \$  Year 3  - \$ - \$ - \$	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$  19.85 \$  -5.250%  Froject verification  Year 4  198 \$ 198 \$ 198 \$ 7  Year 4  - \$ - \$ - \$	\$ 24.00 \$ 19.8 \$ 19.8 \$ 19.8 \$ 19.8 \$ 19.8 \$ 19.9 \$ 19.9	Note - in original Exhibit N these were just values, but in this combined file they have been linked to the Planning Assumptions' K from Exhibit P  USD (Nominal) Cost Unit:  Jeer participant JUSD (Nominal) Cost Unit:	to the Planning Assumptions' from Schibit P so that commodity price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne Assumes incremental Cost from year 5 is unchanged for remaining years of supply contract.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured apparetely above). This cost does not account for what portion of costs may be covered by utility incentives, nor sociolac utility program admin costs.  If there are expectations for external funding sources (eg. RA, etc.) account for those values here. This funding is noted here for reference, it is not used to calculate any of the NGIA evaluation criteria.
	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B	Year 1  S  S  S  Year 1	2400 \$  513 \$ 18.87 \$ 19.63 \$  \$/Dth, for all Dtl \$0.05 each year \$1,500 One time upfro  -5.250%  \$35,000 \$/year  Year  196 \$ 196 \$ 196 \$ 196 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	2400 \$  4.86 \$ 19.14 \$ 19.73 \$ 19.73 \$ 19.73 \$ 19.73 \$ 2 197 \$ 197 \$ 197 \$ 197 \$ 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	2400 \$ 460 \$ 19.40 \$ 19.80 \$ 19.80 \$  -5.250%   Year 3  - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	24.00 \$  4.36 \$ 19.64 \$ 19.85 \$  19.85 \$  19.85 \$  19.85 \$  19.85 \$  19.86 \$ 10.86 \$ 1	\$ 24.00 \$ 419.81 \$ 19.83 \$ 19.83  -5.250  Year 5 \$ -5 \$ -7  Year 5 \$ -7  Year 5 \$ -7  Year 5 \$ -7	Note - in original Exhibit N these were just values, but in this combined file they have been linked to the Planning Assumptions' from Exhibit P  USD (Nominal) Cost Unit:  Jer participant Jer participant Jer participant Jer participant Jer participant Jer participant JUSD (Nominal) Cost Unit:  USD (Nominal) Cost Unit: Jer participant Jer participant Jer participant JUSD (Nominal) Cost Unit: Jer participant JUSD (Nominal) Cost Unit: Jer participant JUSD (Nominal) Cost Unit: Jer participant	to the Planning Assumptions' from Exhibit P so that commodity price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program about the contract of the contract of the NGIA evaluation criteria.  If there are expectations for external funding sources (eg. RIA, etc.) account for those values here. This funding is noted here for reference, it is not used to calculate any of the NGIA evaluation criteria.
PARTICIPANT PILOT	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A	Year 1  S  Year 1  Year 1	2400 \$  513 \$ 18.67 \$ 19.63 \$ \$//bth, for all Dth \$0.05 each year \$1,500 One time up/for  -5,250%  \$35,000 \$//year  Year  190 \$ 190	2400 \$  4.86 \$ 19.14 \$ 19.73 \$ 19.73 \$ 19.73 \$ 19.73 \$ 2 197 \$ 197 \$ 197 \$ 197 \$ 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	2400 \$ 4.60 \$ 19.40 \$ 19.80 \$  19.80 \$  -5.250%   Year 3  198 \$ 198 \$  Year 3  - \$ - \$ - \$	24.00 \$ 4.36 \$ 19.64 \$ 19.85 \$  19.85 \$  -5.250%  Froject verification  Year 4  198 \$ 198 \$ 198 \$ 7  Year 4  - \$ - \$ - \$	\$ 24.00 \$ 19.8° \$ 19.8	Note - in original Exhibit N these were just values, but in this combined file they have been linked to the Planning Assumptions' from Exhibit P  USD (Nominal) Cost Unit:  Jer participant Jer participant Jer participant Jer participant Jer participant Jer participant JUSD (Nominal) Cost Unit:  USD (Nominal) Cost Unit: Jer participant Jer participant Jer participant JUSD (Nominal) Cost Unit: Jer participant JUSD (Nominal) Cost Unit: Jer participant JUSD (Nominal) Cost Unit: Jer participant	to the Planning Assumptions' from Schibit P so that commodity price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year I Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne Assumes incremental Cost from year 5 is unchanged for remaining years of supply contract.  This represents the total requirement and installation costs for technologies implemented as part of this plot (specifically non-utility capital fregicts that were captured apparetly above). This cost does not account for what portion of costs may be covered by utility incentives, nor accided sulfity program admin costs.  If there are expectations for external funding sources (e.g. IBA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGA evaluation criteria.  This represents the upfront costs to participents who perticipate in this plot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Riot costs will be used in the Participant Cost tests for the NGA evaluation criteria. Note 1 arms pilots taking a Direct Install approach may see the utility covering all costs, with no upfront firencial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT PILOT	Geologic Gas Cost Incremental Fuel Cost - Average over Contract Life (based on contract star year)  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs Project Verification Costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Calculations & Other Explanation.	Year 1  S  Year 1  Year 1	2400 \$  513 \$ 1887 \$ 1983 \$ \$/Dth, for all Dti \$0.05 each year \$1,500 One time upfro  -5,250%  \$35,000 \$/year  Year  196 \$ 196 \$ 196 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	24.00 \$  4.86 \$ 19.14 \$ 19.73 \$ 19.70 \$ 19.71 \$ 19.72 \$ 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	2400 \$ 4.60 \$ 19.40 \$ 19.80 \$ 19.80 \$  -5.250%   \$ 4.60 \$ 19.80 \$  19.80 \$  Year 3  - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	24.00 \$ 4.38 4 19.64 \$ 19.85 \$ 19.85 \$  -5.250%  -6.44,806  project verification  Year 4  198 \$ 198 \$ 198 \$  Year 4  - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 24.00 \$ 19.8° \$ 19.8	Note – in original Exhibit N these were just values, but in this combined file they have been linked to the Planning Assumptions' from Exhibit P  USD (Nominal) Cost Unit:    Der participant	to the Planning Assumptions' from Schibit P so that commodity price updates are automatically reflected here. This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year I Commodity costs in the original filling.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. ISA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Rior costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note 1 is none pilots taking a Direct install approach may see the utility covering all costs, with no upfront frencial contribution from the participant.

PARTICIPANT NON- ENERGY COSTS	Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation: Escalation r	Year1  Year2  Year3  Year3  Year4  Year5  Year1  Year1  Year1  Year2  Year3  Year3  Year4  Year5  Year3  Year4  Year5  Year1  Year2  Year3  Year3  Year3  Year3  Year3  Year4  Year5  Year5  Year5  Year6  Year6  Year7  Year7  Year7  Year7  Year7  Year8  Year9  Ye
PARTICIPANT NON- ENERGY SAVINGS	Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C Calculations & Other Explanation	Year 1
PILOT LIFE	Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B Average Lifetime for Savings/Pilot Tech, Size C Calculations & Other Explanation:	10   years 10   years 10   years
NATURAL GAS ENERGY SAVINGS: AVG. DIM/ PARTICIPANT SAVED	Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C Calculations & Other Explanation:	O Dth/Participant O Dth/Participant O Dth/Participant Changes in natural gas consumption for RNG production are already factored into Carbon Intensity through GREET calculations (avoiding double counting them here).
AVG. NON-GAS FUEL UNITS/ PART.	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C Avg. Additional Non-Gas Fuel Units/Part.Used, Size A Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C Calculations & Other Explanation:	O kWh/Participant

0.00 otal Annual Dth Saved, Size A Natural gas energy savings that result from multiplying savings per participant times the total number of new participants in a given year Total Annual Dth Saved, Size B otal Annual Dth Saved, Size C Calculations & Other Explanation: OTAL ANNUAL D SAVED Grid Mix Scenario Otities shall use electric-utility-specific generation mix information for the renewable natural gas facility when it is reasonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from National Renewable Calculations & Other Explanation: Xcel 2025 and Xcel 2030 used to reflect plan window investments over the 10 years - Hennepin Co. confirmed to be in Xcel service territory for electricity supply. SRID MIX SCENARIO ifecycle GHG Intensity Savings, Size A Year 1 Year 2 Year 3 Year 4 Year 5 Utilities shalf file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGIA) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other feels used in the resource is lievoje, the pected greenhouse as intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans. kg CO2e/participant Expected 68.10 68.10 68.10 68.10 68.10 kg CO2e/participant kg CO2e/participant High Lifecycle GHG Intensity Savings, Size B Year 1 Year 2 Year 3 Year 4 Year 5 kg CO2e/participant 68.10 68.10 kg CO2e/participant Expected kg CO2e/participant High Lifecycle GHG Intensity Savings, Size C Year 1 Year 2 Year 3 Year 4 kg CO2e/participant expected kg CO2e/participant kg CO2e/participant ligh INTENSITY BY PROJECT SIZE Calculations & Other Explanation: hese values represent the carbon intensity for this project/archetype, as calculated by ICF using GREET. Some default assumptions from GREET have been updated to better reflect typical expectations for RNG projects in Minnesota (e.g. GHG intensity of GHG Intensity Size A Size B Size C electricity supply), use of combined heat and power on-site vs. grid electricity, etc. kg CO2e/Dth lote that carbon intensities will vary by project, and GREET calculations will be required for specific projects as they are chosen (based on assumed project designs, and later updated for actual operating conditions). ow Scenario xpected Scenario High Scenario kg CO2e/Dth Default Geologic Gas Emissions Factor 66.14 2024-2028 period, using 2029-2033 period, 2034-2038 period, using using 2030 grid mix 2035 grid mix -0.62 -253 RNG GHG factor, updated for grid mix factors 2025, 2030, and 2035 Pilot Lifetime Average 2025 grid mix kg CO2e/Dth In the estimated warrage amount effect of the project on system peak it is estimated to be 1% for energy efficiency pilots. The method for other innovative resources should be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the URBy Cast and Non Participant Cast tests for the entropy of the considered in the context of specific utility proposals. Peak Reduction Factor will be used in the URBy Cast and Non Participant Cast tests for the entropy of the considered in the context of specific utility proposals. Peak Reduction Factor will be used in the URBy Cast and Non Participant Cast tests for the entropy of the considered in the context of specific utility proposals. Peak Reduction Factor will be used in the URBy Cast and Non Participant Cast tests for the entropy of the context of specific utility proposals. Peak Reduction Factor will be used in the URBy Cast and Non Participant Cast tests for the entropy of the entropy of the Cast tests for the entropy of the entropy of the Cast tests for the entropy of t Calculations & Other Explanation:

, and the second				
VARIABLE OSM		\$	Year 1         Year 2           0.05         \$         0.05           Year 2         Year 2         Year 3           -5.250%         -5.250%         -5.250%	Vear 3   Vear 4   Vear 5   USD (Nominal) Cost Units
NON-GAS FUEL COST	Non-Gas (i.e., Electric) Fuel Cost Calculations & Other Explanation:	\$	USD (Nominal) Cost Unit:	it:    The CP methodology is used for all resources other than strategic electrification. The method for strategic electrification should be considered in the content of specific utility pilot proposals.   The CP methodology is used for all resources other than strategic electrification. The method for strategic electrification should be considered in the content of specific utility pilot proposals.   Example of daily real-time final market locational marginal prices (LMP) at the Minnesota Hub from January 1, 2022 to December 31, 2022 using data from Midwest Independent System Operator (MSO)
NON-GAS FUEL LOSS FACTOR	Non-Gas Fuel Loss Factor <u>Calculations &amp; Other Explanation</u> :		8.22%	The CIP methodology is used for all resources other than strategic electrification. The method for strategic electrification should be considered in the context of specific utility pilot proposals. In the most recent CIP, Staff used the weighted average of the most recent loss factors reported by Minnesota Power, Xied Energy, and Otter Tail Power's reported 2021 transmission and distribution loss factors and weighting by the utilities 2017-2019 average retail sales.
OTHER QUANTITA	TIVE CRITERIA:			
	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations & Other Explanation:	\$ \$ \$	USD Cost Unit: 0.37 per Dth 0.37 per Dth 0.37 per Dth	Generally no change from CIP methodology. The factor is calculated using the final environmental cost values approved by Minnesota Public Utilities Commission (Commission). The factors are reported in 2021 dollars in Table 2 below, which were calculated by inflicting the Commission's approved dollar per ton environmental cost values using escalation rate to adjust by observed infliction between 2014 and 2021. Stakeholders expressed a preference for allowing utilities to select different externally values for plots targeting specific geographies or populations. For example, an energy efficiency project that targets an urban area might use the urban value rather than the metropolitan fringe value. Similarly, a project targeting a low-income population might use a high value rather than the median. Utilities can make deviations such as these in their NUAL plans at the cup reprovide justification for the change. Instead of requiring the use of median metropolitan fringe values for all non-GHG pollutants, as shown in Table I of the Commission's January 3, 2018 Order in Docket No. E0999/CH-4-643, utilities may use the value most applicable for the pilot or measure.
OTHER NON-GH POLLUTANTS	2024 Gas environmental damage from all criteria pollutants combined 2022 Gas environmental damage from all criteria pollutants combined Escalation rate from order Annual escalation rate	\$	0.37 0.34 per Dth 2022 USD adjustment to 0.0779 2024 USD 3.82%	The factor is calculated using the median range of the final metropolitan fringe environmental cost values approved by the Minnesota Public Utilities Commission (Commission)27 for carbon dioxide (CO2), sulfur dioxide (SO2), fine particulate matter (PM2.5), carbon monoxide (CO), nitrogen oxides (NO3), and lead (Pb), along with estimated natural gas emission factor (or factors) for each emission provided by the Environmental Protection Agency Source: AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors, Volume t Stationary Point and Area Sources  Annual escalation rate calculated as the average of the 12-month percentage change in the "all items" customer price index available from the United States Bureau of Labor Statistics between 2018 and 2022. https://www.bls.gov/charts/consumer-price-index/consumer-price-index-by-category-line-chart.htm

	Net Direct Job Creation, Size A Net Direct Job Creation, Size B Net Direct Job Creation, Size C	Year 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life  3 8 # of jobs Utilities should consider both jobs created by proposed pilots and job  13 33 # of jobs may be eliminated by proposed pilots.  25 65 # of jobs
	Net Indirect Job Creation, Size A Net Indirect Job Creation, Size B Net Indirect Job Creation, Size C	Year 1 0 0 0			Year 4	Year 5	Total during 5 program years	Remainder of project life  1
	Net Induced Job Creation, Size A Net Induced Job Creation, Size A Net Induced Job Creation, Size A	Year 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			Year 4	Year 5	Total during 5 program years	Remainder of project life   # of jobs   7   18   # of jobs   33   # of jobs   35   # of jobs
	Calculations & Other Explanation: Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.							
	Public Co-Benefits, Size A Public Co-Benefits, Size B Public Co-Benefits, Size C Calculations & Other Explanation:	Year 1 S - S - S -		Year 3  \$ - \$ \$ - \$ \$ - \$ \$ - \$		Year 5 - \$ - \$ -	USD (Nominal) Cost Unit: per year per year per year	Quantifiable in some cases if this metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative Considerations section below.
	Water Pollution, Size A	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:  per year	The legislation left the door open to quantify any costs and benefits on water pollution. This might be quantifiable for some of the projects
	Water Pollution, Size B Water Pollution, Size C Calculations & Other Explanation.	\$ -		\$ - \$		\$ -	per year per year	The egoalscut retriet use, year of quelitary any closus and seemics in the Additional Qualitative Considerations for Softer to the projects metric land quantifields, there is space for any qualitative comments in the Additional Qualitative Considerations section below.
WATER POLLUTION								

### ADDITIONAL QUALITATIVE CONSIDERATIONS:

NGIA Utility Perspective Notes:

It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and CIP quantification methods.

NGIA Participants'
Perspective Notes:
Definition:

It is expected that many of the elements of the participant perspective, with respect to the direct effect of pilots, will be quantifiable. For example, increased comfort in a home and health benefits from pilots that improve indoor air quality are two examples of benefits that may be difficult to quantify.

NGIA	
NGIA Nonparticipating	
Nonparticipating Customers' Perspective Notes:	
erspective Notes:	As with the utility perspective, the direct effects of pilot programs on non-
	participating customers should be quantified in most cases and can be heavily
Definition:	informed by structural values  Triviales widespread benefits to all sales customers
	Turruces musespirequi un initia tu dii sonos custorinos
Effects on Other	
Effects on Other Energy Systems and Energy Security: Definition:	
and Energy Security:	
Definition:	
	NGIA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utility and its customers. Measures like strategic electrification specifically require gas utilities and the Commission to avoid negative effects on the electric system. Further, the NGIA empowers the Commission to consider a wide variety of "costs and benefits that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel markets.
	Fuel made in M and reduces import of fuel from outside of MN
GHG Emissions Notes:	
Notes: Definition:	An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion of any
	environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.
Other Pollution	
Other Pollution Notes: Definition:	
Definition:	include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.
	Planed facility located in a newtonmental justice area of concern
Waste Reduction and Reuse Notes:	
ind Reuse Notes:	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA includes
Definition:	reduction of water use.
	Supports community organics recycling
Policy Notes:	NGA is intended to help the state achieve certain environmental policy goals
	including geologic gas throughput reduction and increased use of renewable
Definition:	resources. Reduces fossil gas throughput; avoids landfilling; increases use of renewable energy
	vaduces ivasi gas tri vugitpu, avvius ia kuitili (g. intelesses use or i elemana e ma gy
Net Job Creation	
Notes:	
	An innovation plan must include, as applicable, "projected local job impacts
Definition:	resulting from implementation of the plan," Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.
<u>Economic</u> Development	
vevelopment Votes:	
Notes: Definition:	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional
	economic benefits. Will pay prevailing wages; will seek apprentices; will seek to hire from local community
	THE PAY PROTEINING TORSON, THE WORK OF THE THE THE PAY
Public Co-Benefits	
Public Co-Benefits Notes: Definition:	
	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.
	Supports local government was the management
<u>Market</u>	
Development Notes: Definition:	
Definition:	
	The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are realized May produce fertilizer or soil amendments
	may produce to times or continuous mental

Direct Innovation
Support Notes:
Definition:

This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA 40 are unlikely to produce significant benefits on their own but are intended to lead to future opportunities.

Opportunity for Company to learn about purchasing RNG

While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.

Realistic pathways to decarbonization include RNG

21/		ick here to go back to the list of all pilots  NGIA Pilot Profiles Workbook	
うにF	CNPO2 - RNG Proposal - Anaerobic Digestion of East Metro Food Waste	larch 15th 2024 Update: The assumed participating units (e.g. volume of RNG to be contracted) from this pilot has been changed, to reflect updated expectations about the p	ortion of total RNG production that will be available for long-term contracts. Updated input cells marked in green.
	Pilot Project Code:	NPO2 NG Proposal - Anaerobic Digestion of East	
	Pilot Project Name:	letro Food Waste	
	Customer Class/ Sector: Low-Income Community Benefit?	&i & Res	
	Target Area:	erritory-wide	
	Primary Innovative Resource Category:	enewable Natural Gas (RNG) Select primary Innovation Category. Others can be listed here:	
	Pilot Description: CenterPoint Energy proposes to buy RNG, including both the commodity and en	onmental attributes, from Ramsey and Washington Counties' anaerobic digestion facility under development.	
DESCRIPTION			
	Overview of Program/ Implementation Approach:		
	This project is expected to be operational in 2026.		
	The terms of the RNG purchase contract would be determined at a later date; a Environmental attributes would be retired on behalf of CenterPoint Energy cust	gures in this spreadsheet are estimates for the purpose of this analysis. ers	
	o,		
	Other Comments / Information:		
	Assumes offtake from developer or other entity, not capital investment from Cf		
KEY PILOT-SPECIFIC			
	Pilot Year Calendar Year	Year 1         Year 2         Year 3         Year 4         Year 5           2024         2025         2026         2027         2028	
	Participating Units, Size A		gle year. Incremental units added, annual (not cumulative).
	Participating Units, Size B Participating Units, Size C	95,383 Note, this represents the annual RNG (0th/yea	r) that will be purchased through a multi-year agreement (project life defined below) starting in this year.
		nits above are to annual dekatherms of RNG supply (shown only for the year supply contract starts)	
	Calculations & Other Explanation:	026 is the RFI respondent's updated target for digester RNG setup.	
NUMBER OF PARTICIPANTS	Cumulative RNG Supply (Dth/year), Size A	Year 1         Year 2         Year 3         Year 4         Year 5         S           -         -         18.168         18.168         18.168         18.168	size A (10% of Dth listed in RFI response)  2 mcfh or 48 mcfd  18168 Dth/yr
PARTICIPANTS	Cumulative RNG Supply (Dth/year), Size E	95,383 95,383 95,383	Size B (50% of Dth listed in RFI response) March 15th 2024 Update: The assumed participating units (e.
	Cumulative RNG Supply (Dth/year), Size C	190,767 190,767 190,767 s	10.5 mcfh or 252 mcfd 95383 Dth/yr ize C (100% of Dth listed in RFI response)
	Assumed Number of GHG Verifications Required, Size A	0 0 1 1 1	21 mcfh or 504 mcfd 190767 Dth/yr
	Assumed Number of GHG Verifications Required, Size B	0 0 1 1 1 1 Convert	from MCF to MMBtu with *1.037 1.037
	Assumed Number of GHG Verifications Required, Size C	0 0 1 1 1	
		Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:	
	Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B	- \$ 10,094 \$ 425,235 \$ 428,436 \$ 432,916 total cost per year - \$ 10,094 \$ 1,926,921 \$ 1,948,777 \$ 1,970,932 total cost per year	These incremental utility costs are what will count against the NGIA budget cap for this measure and will be used in the Utility Cost, and Non  Participant Cost tests for the NGIA evaluation criteria. This is the sum of utility admin costs to run pilot, any incentive funding to support project
	Annual Total Utility Incremental Cost, Size C	- \$ 10,094 \$ 3,781,945 \$ 3,826,845 \$ 3,870,835 total cost per year	deployment, and/or the utility's annual revenue requirement for capital investments made on select pilots.
		Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:	
	Fixed O&M Cost, Size A Fixed O&M Cost, Size B	- \$ 10,094 \$ 425,235 \$ 428,436 \$ 432,916 total cost per year - \$ 10,094 \$ 1,926,921 \$ 1,948,777 \$ 1,970,932 total cost per year	Fixed O&M Cost is the result of adding up Total Project Delivery, Advertising and Promotions, Utility Administration, Trade Ally Incentives, and Workforce Development of Market Transformation Cost
	Fixed O&M Cost, Size C	- \$ 10,004 \$ 3,381,945 \$ 3,826,845 \$ 3,870,835 total cost per year	
		Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:	
	Total Project Delivery, Size A	- \$ 10,094 \$ 425,235 \$ 428,436 \$ 432,916 per year	Total internal and external project delivery
	Total Project Delivery, Size B Total Project Delivery, Size C	- \$ 10,094 \$ 1,926,921 \$ 1,948,777 \$ 1,970,932 per year - \$ 10,094 \$ 3,781,945 \$ 3,826,845 \$ 3,870,835 per year	
		Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:	
	Internal Project Delivery, Size A Internal Project Delivery, Size B	\$ 10,094 \$ 10,397 \$ 10,709 \$ 11,030 per year \$ 10,094 \$ 10,397 \$ 10,709 \$ 11,030 per year	CNP staff. These costs are sub-set of the Utility "Fixed OSM Cost" category above.
	Internal Project Delivery, Size B Internal Project Delivery, Size C	\$ 10,094 \$ 10,397 \$ 10,709 \$ 11,030 per year \$ 10,094 \$ 10,397 \$ 10,709 \$ 11,030 per year	
		Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:	
	External Project Delivery, Size A	- \$ - \$ 414,838 \$ 417,727 \$ 421,886 per year	External vendor costs would include direct install costs where CNP reimburses the vendor. These costs are sub-set of the Utility 'Fixed OSM Cost' category above.
	External Project Delivery, Size B External Project Delivery, Size C	- \$ - \$ 1,916,524 \$ 1,938,068 \$ 1,959,902 per year - \$ - \$ 3,771,548 \$ 3,816,136 \$ 3,859,805 per year	COST Catagory above.
		Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:	
	Advertising and Promotions, Size A	- \$ - \$ - \$ - peryear	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Advertising and Promotions, Size B Advertising and Promotions, Size C	- \$ - \$ - \$ - peryear - \$ - \$ - \$ - peryear	
	**********		<del></del>
	Allocation of General Portfolio Costs, Size A	Year 1         Year 2         Year 3         Year 4         Year 5         USD (Nominal) Cost Unit:           per year	Share of portfolio level costs, including plan development costs, regulatory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs, Size C	per year per year	
	- Indiana Control Cont		
	Trade Ally Incentives. Size A	Year 1         Year 2         Year 3         Year 4         Year 5         USD (Nominal) Cost Unit:           -         \$         -         \$         -         \$         -         per year	If applicable, include here the annual amount of trade ally incentives (e.g. midstream program)
	Trade Ally Incentives, Size B	- \$ - \$ - per year	
	Trade Ally Incentives, Size C	- \$ - \$ - peryear	

		Year 1	Ye	ear 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Workforce Development or Market Transformation Cost, Size A	\$	- \$	- \$	- \$	-	\$ -	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Workforce Development or Market Transformation Cost, Size B	\$	- \$	- \$	- \$	-	\$ -	per year	
	Workforce Development or Market Transformation Cost, Size C	\$	- \$	- \$	- \$		\$ -	per year	_
		Year 1	Ye	ear 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	<u>_</u>
UTILITY PILOT COSTS	Other Fixed O&M Cost, Size A Other Fixed O&M Cost, Size B	\$	- \$ - \$	- \$	- \$	-	\$ -	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
C0313	Other Fixed O&M Cost, Size B Other Fixed O&M Cost, Size C	\$	- S	- \$ - \$	- \$ - \$		\$ -	per year per year	_
					1.		11.2	li	
	W. J. J. W	Year 1	Ye	ear 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Total utility capital investment, Size A Total utility capital investment, Size B	\$	- \$	- \$	- \$		\$ -	per year per vear	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital
	Total utility capital investment, Size C	\$	- \$	- \$	- \$	-	\$ -	per year	investments (shown below).
		Year 1	V-	ear 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Est. Annual Revenue Requirement for Capital Projects. Size A	\$	- \$	- \$	- \$	- Teal 4	\$ -	per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as
	Est. Annual Revenue Requirement for Capital Projects, Size B	\$	- \$	- \$	- \$	-	\$ -	per year	well as the utility "Fixed O&M Costs" captured above. This revenue requirement is calculated from the magnitude & timing of capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
	Est. Annual Revenue Requirement for Capital Projects, Size C	\$	- \$	- \$	- \$	-	\$ -	per year	captared above, based on expected measure me (and depreciation time period), as were as the durity's return on investment.
		Total		al) Cost Unit:					
	Est. Total Revenue Requirement for Capital Projects, Size A Est. Total Revenue Requirement for Capital Projects, Size B	\$	- per year - per year						The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to
	Est. Total Revenue Requirement for Capital Projects, Size C	\$	- per year						calculate any of the NGIA evaluation criteria.
	Incentives, Size A	Year 1	_ \$	ear 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc). Do not include
	Incentives, Size B	\$	- \$	- \$	- \$	-	\$ -	per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct
	Incentives, Size C	\$	- \$	- \$	- \$	-	\$ -	per year	install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will be used in the Participant Cost tests for the NGIA evaluation criteria.
		Year 1	Ye	ear 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives per Participant, Size A	#DIV/O!	#D	IV/0! \$	-	#DIV/0!	#DIV/O!	per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size B	#DIV/0! #DIV/0!		IV/0! \$	-	#DIV/0! #DIV/0!	#DIV/O!	per participant per year	
	Incentives per Participant, Size C	#DIV/0!	#0	1V/O! \$	-	#DIV/O!	#DIV/O!	per participant per year	_
	Calculations & Other Explanation:								
	RNG Contract Purchase Co	Year 1	24.00 \$	24.00 \$	Year 3 24.00 \$	Year 4 24.00	Year 5	D per Dth (1 Dth = 1 MMBtu)	
	ind Solidati distassi	750	24.00 \$	24.00 \$	24.00	24.00	¥ 14.0	por Bur (1 Bur = 1 hin Bu)	Note - in original Exhibit N these were based on a fixed value for Year 1, but in this combined file they have been
									linked to the 'Planning Assumptions' from Exhibit P so that commodity price updates are automatically reflected here.
	Geologic Gas Co		5.13 \$	486 \$	4.60 \$	4.36	. 41	3 per Dth	This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filing.
	Incremental Fuel Co	ost: \$	18.87 \$	19.14 \$	19.40 \$	19.64		7 per Dth	Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that
	Incremental Fuel Cost - Average over Contract Life (based on contract st								
	ye	ear): \$	19.63 \$	19.73 \$	19.80 \$	19.85	\$ 19.8	7 per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	M-RETS RTC On-going Registration Co	sts:	\$0.05 \$/Dth, for all	Dth produced eac	ch year				
	M-RETS RTC Upfront Registration Co.	sts:	\$1,500 One time up	front					
	Project Verification Co.								
		sts:	\$60,000 \$/year	Gre	een-E or other cost for	project verification			
			· · · · · · · · · · · · · · · · · · ·						
	Total Pilot Unfront Costs Size A	year 1	Ye	ar 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	This represents the total anaignment and installation cours for technologies implemented as part of this pilet (specifically one-stillty capital
	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B		· · · · · · · · · · · · · · · · · · ·				\$ 19	9 per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor
			Ye	197 \$	Year 3	Year 4	\$ 19	9 per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
	Total Pilot Upfront Costs, Size B	Year 1 \$ \$ \$ \$ \$ \$ \$ \$	196 \$ 196 \$ 196 \$	197 \$ 197 \$ 197 \$	Year 3  198 \$ 198 \$ 198 \$	Year 4	\$ 19 \$ 19 \$ 19	9 per participant 9 per participant 9 per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor
	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A		196 \$ 196 \$ 196 \$	197 \$	Year 3	Year 4	\$ 19	per participant per participant per participant USD (Nominal) Cost Unit: per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's
TOTAL AND DIRECT	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B	Year 1 \$ \$ \$ \$ \$ \$ \$ \$	196 \$ 196 \$ 196 \$	197 \$ 197 \$ 197 \$	Year 3  198 \$ 198 \$ 198 \$	Year 4	\$ 19 \$ 19 \$ 19	per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
PARTICIPANT PILOT	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C	Year 1 \$ \$ \$ \$ \$ \$ \$ \$	196 \$ 196 \$ 196 \$	197 \$ 197 \$ 197 \$	Year 3  198 \$ 198 \$ 198 \$	Year 4	\$ 19 \$ 19 \$ 19	per participant per participant per participant USD (Nominal) Cost Unit: per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's
	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B	Year 1 \$ \$ \$ \$ \$  Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Ye 196   \$ 196   \$ 196   \$ 196   \$  Ye -   \$ -   \$ -   \$	197 \$ 197 \$ 197 \$ 197 \$ 201 \$ 197 \$ 197 \$	Year 3  198 \$ 198 \$ 198 \$ 198 \$  Year 3  - \$ - \$ - \$	Year 4  198  198  198  Year 4	\$ 19 \$ 19 \$ 19 <b>Year 5</b> \$ - \$ -	per participant     per participant     per participant  USD (Nominal) Cost Unit:     per participant     per participant     per participant     per participant     per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's
PARTICIPANT PILOT	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:	Year 1 \$ \$ \$ \$ \$ \$ \$ \$	Ye 196   \$ 196   \$ 196   \$ 196   \$  Ye -   \$ -   \$ -   \$	197 \$ 197 \$ 197 \$	Year 3  198 \$ 198 \$ 198 \$	Year 4	\$ 19 \$ 19 \$ 19	## perparticipant ## per participant ## per participant ## USD (Nominal) Cost Unit: ## per participant ## per participant ## per participant ## per participant ## USD (Nominal) Cost Unit: ## USD (Nominal) Cost Unit: ## Per participant ## Per	projects that were captured asparately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
PARTICIPANT PILOT	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A	Year 1 \$ \$ \$ \$ \$  Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Ye 196   \$ 196   \$ 196   \$ 196   \$  Ye -   \$ -   \$ -   \$	197 \$ 197 \$ 197 \$ 197 \$ 201 \$ 197 \$ 197 \$	Year 3  198 \$ 198 \$ 198 \$ 198 \$  Year 3  - \$ - \$ - \$	Year 4  198  198  198  Year 4	\$ 19 \$ 19 \$ 19 <b>Year 5</b> \$ - \$ -	per participant     per participant     per participant  USD (Nominal) Cost Unit:     per participant     per participant     per participant     per participant     per participant	projects that were captured apparately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note
PARTICIPANT PILOT	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A	Year 1 \$ \$ \$ \$ \$  Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Ye 196   \$ 196   \$ 196   \$ 196   \$  Ye -   \$ -   \$ -   \$	197 \$ 197 \$ 197 \$ 197 \$ 201 \$ 197 \$ 197 \$	Year 3  198 \$ 198 \$ 198 \$ 198 \$  Year 3  - \$ - \$ - \$	Year 4  198  198  198  Year 4	\$ 19 \$ 19 \$ 19 <b>Year 5</b> \$ - \$ -	g per participant g per participant per participant USD (Nominal) Cost Unit: per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NCIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted
PARTICIPANT PILOT	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C	Year 1 \$ \$ \$ \$  Year 1 \$ \$  Year 1 \$ \$ \$  Year 1 \$ \$ \$ \$ \$ \$ \$  Year 1	Ye  196   \$  196   \$  196   \$  196   \$  Ye  -   \$ -   \$ -   \$ -   \$ -   \$ -   \$ -   \$ -   \$ -   \$	197 \$ 197 \$	Year 3  198   \$ 198   \$ 198   \$ 198   \$  198   \$  Year 3  -   \$ -   \$  Year 3  -   \$ -   \$  Year 3	Year 4  198 198 198 Year 4	\$ 19 \$ 19 \$ 19  Year 5 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	g per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant usb (Nominal) Cost Unit: per participant per participant	projects that were captured apparately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note
PARTICIPANT PILOT	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A	Year 1 \$ \$ \$ \$  Year 1 \$ \$  Year 1 \$  Year 1 \$  Year 1	Ye  196   \$  196   \$  196   \$  196   \$  Ye  -   \$ -   \$ -   \$ -   \$ -   \$ -   \$ -   \$ -   \$ -   \$	197 \$ 197 \$ 197 \$ 197 \$ 201 \$ 197 \$ 197 \$	Year 3  198 \$ 198 \$ 198 \$ 198 \$  Year 3  - \$ - \$ - \$	Year 4  198  198  198  Year 4	\$ 19 \$ 19 \$ 19 Year 5 \$ Year 5 \$ Year 5	g per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant usb (Nominal) Cost Unit: per participant per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NCIIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Perticipant Pilot costs will be used in the Perticipant Cost tests for the NCIIA evaluation criteria. Note a come pilots taking a Direct feealf approach may see the utility covering all costs, with no upfront financial contribution from the perticipant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT PILOT	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:	Year 1 \$ \$ \$ \$  Year 1 \$ \$  Year 1 \$  Year 1 \$  Year 1	Ye  196   \$ 196   \$ 196   \$ 196   \$  -   \$	197 \$ 197 \$	Year 3	Year 4  198 198 198 Year 4	\$ 19 \$ 19 \$ 19 Year 5 \$ Year 5 \$ Year 5	## appropricipant ## appropri	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are espectations for external funding sources (e.g. (E.A., etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILOT	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:	Year 1 \$ \$ \$ \$  Year 1 \$ \$  Year 1 \$  Year 1 \$  Year 1	Ye  196 \$ 196 \$ 196 \$ 196 \$  Ye  - \$ - \$ - \$ - \$ - \$  - \$  Ye  - \$ - \$ - \$  Ye  - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	197 \$ 197 \$	Year 3	Year 4  198 198 198 Year 4	\$ 19 \$ 19 \$ 19 Year 5 \$ Year 5 \$ Year 5	## appropricipant ## appropri	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NCIIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Perticipant Pilot costs will be used in the Perticipant Cost tests for the NCIIA evaluation criteria. Note a come pilots taking a Direct feealf approach may see the utility covering all costs, with no upfront financial contribution from the perticipant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT PILOT	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation r.  Participant Non-Energy Costs, Size A	Year 1  \$ \$ \$ \$ \$  Year 1  \$ \$  Year 1  \$  Year 1  \$  Year 1	Ye  196 \$ 196 \$ 196 \$ 196 \$  Ye  - \$ - \$ - \$ - \$ - \$  - \$  Ye  - \$ - \$ - \$  Ye  - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	197 \$ 197 \$ 197 \$ 197 \$ 297 2 \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ \$ - \$ \$ 298 2 \$	Year 3  198   \$ 198   \$ 198   \$ 198   \$ 198   \$  Year 3  Year 3  Year 3  Year 3  Year 3  3.82%	Year 4  198 198 198 Year 4  Year 4  Year 4  3.82%	\$ 19 \$ 19  Year 5 \$ - \$ -  Year 5 \$ - \$ -  Year 5 \$ -  \$ 3.87	per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the
PARTICIPANT PILOT	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size S Calculations & Other Explanation:  Escalation of Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A	Year 1  \$ \$ \$ \$ \$  Year 1  \$ \$  Year 1  \$  Year 1  \$  Year 1	Ye  196 \$ 196 \$ 196 \$ 196 \$  Ye  - \$ - \$ - \$ - \$ - \$  - \$  Ye  - \$ - \$ - \$  Ye  - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	197 \$ 197 \$ 197 \$ 197 \$ 297 2 \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ \$ - \$ \$ 298 2 \$	Year 3  198   \$ 198   \$ 198   \$ 198   \$ 198   \$  Year 3  Year 3  Year 3  Year 3  Year 3  3.82%	Year 4  198 198 198 Year 4  Year 4  Year 4  3.82%	\$ 19 \$ 19  Year 5 \$ - \$ -  Year 5 \$ - \$ -  Year 5 \$ -  \$ 3.87	per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g., IEA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Piot costs will be used in the Participant Cost tests for the NGIA evaluation criteria, blue 1 score pilote stating a Direct tread approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage charge in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation r  Participant Non-Energy Costs, Size A	Year 1  \$ \$ \$ \$ \$  Year 1  \$ \$  Year 1  \$  Year 1  \$  Year 1	Ye  196 \$ 196 \$ 196 \$ 196 \$  Ye  - \$ - \$ - \$ - \$ - \$  - \$  Ye  - \$ - \$ - \$  Ye  - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	197 \$ 197 \$ 197 \$ 197 \$ 297 2 \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ \$ - \$ \$ 298 2 \$	Year 3  198   \$ 198   \$ 198   \$ 198   \$ 198   \$  Year 3  Year 3  Year 3  Year 3  Year 3  3.82%	Year 4  198 198 198 Year 4  Year 4  Year 4  3.82%	\$ 19 \$ 19  Year 5 \$ - \$ -  Year 5 \$ - \$ -  Year 5 \$ -  \$ 3.87	per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation r  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:	Year 1  \$  \$   Year 1  \$   Year 1  \$   Year 1  \$   Year 1  Year 1  Year 1  Year 1	Ye  196   \$ 196   \$ 196   \$ 196   \$ 196   \$	197   \$ 197   \$ 197   \$ 197   \$ 197   \$ 197   \$ 197   \$ 197   \$ 197   \$ 198	Year 3	Year 4  198 198 198 Year 4	\$ 19 19 19 19 19 19 19 19 19 19 19 19 19	Departicipant D	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RR, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note 2 some pilots taking a Direct install approach may see the utility covering all costs, with outprint indical contribution from the participant.  For an escalation rate, we see the everage of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding.  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation r  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C	Year 1  \$  \$   Year 1  \$   Year 1  \$   Year 1  \$   Year 1  Year 1  Year 1  Year 1	Ye  196   \$ 189   \$ 189   \$ 199   \$  Ye  -   \$ -   \$ -   \$ -   \$  3.82%    Ye  -   \$	ar 2  197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 198 \$	Year 3	Year 4  198 198 198 198 Year 4	\$ 19 19 19 19 19 19 19 19 19 19 19 19 19	per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note 2 some pilots taking a Direct Install approach may see the utility covering all costs, with outfront project indication from the participant.  For an escalation rate, we use the everage of the 12-month precentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation r  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:	Year 1	Ye  196   \$ 196   \$ 196   \$ 196   \$ 196   \$  Ye  -   \$ -   \$ -   \$ -   \$ -   \$  -   \$ -   \$ -   \$  -   \$ -   \$  -   \$ -	ar 2  197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 198 \$	Year 3	Year 4  198 198 198 198 Year 4	\$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19	g) per participant USD (Nominal) Cost Unit: per participant per	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Calculations & Other Explanation:  Escalation r  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation: Escalation r  Escalation r	Year 1  \$  \$   Year 1  \$   Year 1  \$   Year 1  \$   Year 1  Year 1  Year 1  Year 1	Ye  196   \$ 196   \$ 196   \$ 196   \$ 196   \$  Ye  -   \$ -   \$ -   \$ -   \$ -   \$  -   \$ -   \$ -   \$  -   \$ -   \$  -   \$ -	197   \$ 197   \$ 197   \$ 197   \$ 197   \$ 197   \$ 197   \$ 197   \$ 197   \$ 198	Year 3	Year 4  198 198 198 Year 4	\$ 19 19 19 19 19 19 19 19 19 19 19 19 19	per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a Direct install approach may see the utility covering all costs, with outprint financial contribution from the participant.  For an escalation rate, we use the everage of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor
PARTICIPANT PILOT COSTS  PARTICIPANT NON- ENERGY COSTS	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation of Participant Non-Energy Costs, Size C Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size A	Year 1	Ye  196   \$ 196   \$ 196   \$ 196   \$ 196   \$  Ye  -   \$ -   \$ -   \$ -   \$ -   \$  -   \$ -   \$ -   \$  -   \$ -   \$  -   \$ -	ar 2  197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 198 \$	Year 3	Year 4  198 198 198 198 Year 4	\$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19	per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RR, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note 2 some pilots taking a Direct install approach may see the utility covering all costs, with outprint indical contribution from the participant.  For an escalation rate, we see the everage of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS  PARTICIPANT NON- ENERGY COSTS	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation of Participant Non-Energy Costs, Size C Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size A	Year 1	Ye  196   \$ 196   \$ 196   \$ 196   \$ 196   \$  Ye  -   \$ -   \$ -   \$ -   \$ -   \$  -   \$ -   \$ -   \$  -   \$ -   \$  -   \$ -	ar 2  197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 198 \$	Year 3	Year 4  198 198 198 198 Year 4	\$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19	per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a Direct install approach may see the utility covering all costs, with outprint financial contribution from the participant.  For an escalation rate, we use the everage of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor
PARTICIPANT PILOT COSTS  PARTICIPANT NON- ENERGY COSTS	Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Calculations & Other Explanation:  Escalation r  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation r  Participant Non-Energy Costs, Size A Participant Non-Energy Savings, Size A	Year 1	Ye  196   \$ 196   \$ 196   \$ 196   \$ 196   \$  Ye  -   \$ -   \$ -   \$ -   \$ -   \$  -   \$ -   \$ -   \$  -   \$ -   \$  -   \$ -	ar 2  197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 197 \$ 198 \$	Year 3	Year 4  198 198 198 198 Year 4	\$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19	per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a Direct install approach may see the utility covering all costs, with outprint financial contribution from the participant.  For an escalation rate, we use the everage of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor

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PILOT LIFE	Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B Average Lifetime for Savings/Pilot Tech, Size C Calculations & Other Explanation:	10	years years years					
NATURAL GAS ENERGY SAVINGS: AVG. Dth/ PARTICIPANT SAVED	Avg, Dth/Participant Saved, Size A Avg, Dth/Participant Saved, Size B Avg, Dth/Participant Saved, Size C Calculations & Other Explanation:	0	Dth/Participant Dth/Participant Dth/Participant uction are already factored	into Carbon Intensity t	hrough GREET calculation	ns (avoiding doub	le counting them here).	
AVG. NON-GAS FUEL UNITS/ PART.	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C  Avg. Additional Non-Gas Fuel Units/Part.Used, Size A Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C  Calculations & Other Explanation:	0 0	kWh/Participant kWh/Participant kWh/Participant kWh/Participant kWh/Participant	Avg. Additional Non-Gas Fu	el Units/Part. Used will be usec	in the Participant Co	Saved will be used in the Participant Co at tests for the NGIA evaluation criteria.	at tests for the NGIA evaluation criteria.
TOTAL ANNUAL Dth SAVED	Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C Calculations & Other Explanation:	Year 1 0.00 0.00 0.00	Year 2 0.00 0.00 0.00	Vear 3 0.00 0.00 0.00	Year 4 0.00 0.00 0.00	Year 5 0.00 0.00 0.00		Natural gas energy savings that result from multiplying savings per participant times the total number of new participants in a given year
GRID MIX SCENARIO	Grid Mix Scenario  Calculations & Other Explanation:	Xcel		-	mix scenarios taking into acco		ewable natural gas facility when it is reasonation	onably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from National and authors from a classificial through the control of authors from a classificial through the control of authors from the control of authors from a classification of authors from the control of authors from a classification of authors from the control of aut
	This section does not apply to all pilot types. The GHG changes from decrea	ased natural gas and/or electricity consumption wil	l be calculated based on v	values above. However	, for pilots where NGIA r	equires lifecycle	GHG savings (e.g. RNG, hydroge	n, carbon capture) this section accounts for the lifecycle change in GHG emissions (per unit of participation).
	This section does not apply to all pilot types. The GHG changes from decrea	ased natural gas and/or electricity consumption will Year 1	l be calculated based on v	values above. However Year 3	, for pilots where NGIA r	equires lifecycle Year 5		n, carbon capture) this section accounts for the lifecycle change in GHG emissions (per unit of participation).
						Year 5	kg CO2e/participant kg CO2e/participant	Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGIA) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and
	Lifecycle GHG Intensity Savings, Size A Low Expected High	Year 1 96.89	Year 2 96.89	Year 3 96.89	Year 4 96.89	<b>Year 5</b> 96.89	kg CO2e/participant	Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act
	Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low	Year 1 96.89	Year 2 96.89 Year 2	Year 3	Year 4 96.89 Year 4	Year 5 96.89 Year 5	kg CO2e/participant kg CO2e/participant kg CO2e/participant kg CO2e/participant	Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGIA) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Explored greenhouse gain intensity values will be used in cost-benefit acclusations and when
	Lifecycle GHG Intensity Savings, Size A Low Expected High	Year 1 96.89	Year 2 96.89	Year 3 96.89	Year 4 96.89	Year 5 96.89 Year 5	kg CO2e/participant kg CO2e/participant kg CO2e/participant	Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGIA) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Explored greenhouse gain intensity values will be used in cost-benefit acclusations and when
	Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C	Year 1 96.89	Year 2 96.89 Year 2	Year 3 96.89	Year 4 96.89 Year 4	Year 5 96.89 Year 5	kg CO2e/participant	Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGIA) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Explored greenhouse gain intensity values will be used in cost-benefit acclusations and when
	Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C Low Expected Expected Lifecycle GHG Intensity Savings, Size C Low	Year 1 96.89 Year 1 96.89	Year 2 96.89 Year 2 96.89	Year 3 96.89 Year 3	Year 4 96.89 Year 4	Year 5 96.89 Year 5 96.89	kg CO2e/participant	Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGIA) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Explored greenhouse gain intensity values will be used in cost-benefit acclusations and when
LIFECYCLE GHG INTENSITY BY PROJECT SIZE	Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected Lifecycle GHG Intensity Savings, Size C Low	Year 1 96.89 Year 1 96.89	Year 2 96.89 Year 2 96.89	Year 3 96.89 Year 3	Year 4 96.89 Year 4	Year 5 96.89 Year 5 96.89	kg CO2e/participant	Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGIA) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Explored greenhouse gain intensity values will be used in cost-benefit acclusations and when
INTENSITY BY	Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C Low Expected Expected Lifecycle GHG Intensity Savings, Size C Low	Year 1  96.89  Year 1  96.89  Year 1  96.89  Year 1  96.89  For RNG pilots (where the units of participation are Dth of RNG purchased) the above values represent the Rifecyte emission reduction achieved per Divid Policy Carbon intensity conducted as the difference between the carbon intensity carbon intensity carbon achieved per Divid paid, vs. the GRETT emission factor for geologic natural gas combustion).	Year 2 96.89 Year 2 96.89 Year 2 96.89	Year 3 96.89 Year 3	Year 4 96.89 Year 4 96.89 Year 4 96.89	Year 5 96.89 Year 5 96.89 Year 5 96.89	kg CO2e/participant	Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGIA) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Explored greenhouse gain intensity values will be used in cost-benefit acclusations and when
INTENSITY BY	Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C Low Expected High	Year 1  96.89  Year 1  96.89  Year 1  96.89  Year 1  96.89  For RNG pilots (where the units of participation are Drit of RNG participation for the Rng year of RNG participation for RNG participation for the Rng year of RNG participation for the Rng year of	Year 2  96.89  Year 2  96.89  Year 2  96.89  Xensity  Size B	Year 3 96.89 Year 3	Year 4  96.89  Year 4  96.89  Year 4  96.89	Year 5 96.89 Year 5 96.89 Year 5 96.89	kg CO2e/participant	Utilities shall file a high low and expected greenhouse gas intensity for innovative recourses included in a proposed Natural Gas innovation Act innovative (NGIA) plan, where applicable. High each low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resources lifecyles Expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.  I using GREET. Some default assumptions from GREET have been updated to better reflect typical expectations for RNG projects in Minnesota (e.g. GHG act.)
INTENSITY BY	Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C Low Expected High	Year 1  96.89  General Section of the section of th	Year 2  96.89  Year 2  96.89  Year 2  96.89  Xensity  Size B	Year 3  Year 3  96.89  Year 3  96.89  Size C	Year 4 96.89 Year 4 96.89 Year 4 96.89 These values represent the cultimately of electricity supply Note that carbon intensities w	Year 5 96.89 Year 5 96.89 Year 5 96.89 Arbon intensity for this, use of combined he will vary by project, an	kg CO2e/participant	Utilities shall file a high low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation RCIGID Jam, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resources lifecycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.  **Lusting GREET. Some default assumptions from GREET have been updated to better reflect typical expectations for RNG projects in Minnesota (e.g. GHG etc. specific projects as they are chosen (based on assumed project designs, and later updated for actual operating conditions).
INTENSITY BY	Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C Low Expected High Calculations & Other Explanation: Low Scenario	Year 1  96.89  Year 1  96.89  Year 1  96.89  Year 1  96.89  For RNG pilots (where the units of participation are Drit of RNG participation for the Rng year of RNG participation for RNG participation for the Rng year of RNG participation for the Rng year of	96.89  Year 2  96.89  Year 2  96.89  Year 2  96.89  Stea B	Year 3  Year 3  96.89  Year 3  96.89  Size C	Year 4 96.89 Year 4 96.89 Year 4 96.89 These values represent the cultimately of electricity supply Note that carbon intensities w	Year 5 96.89 Year 5 96.89 Year 5 96.89  Year 5 0.00000000000000000000000000000000000	kg CO2e/participant	Utilities shall file a high low and expected greenhouse gas intensity for innovative recourses included in a proposed Natural Gas innovation Act innovative (NGIA) plan, where applicable. High each low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resources lifecyies Expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.  I using GREET. Some default assumptions from GREET have been updated to better reflect typical expectations for BNG projects in Minnesota (e.g. GHG act.)
INTENSITY BY	Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C Low Expected High  Lifecycle GHG Intensity Savings, Size C Low Calculations & Other Explanation: Low Scenario Expected Scenario	Year 1  96.89  General Section of the section of th	96.89  Year 2  96.89  Year 2  96.89  Year 2  96.89  Stea B	Year 3  Year 3  96.89  Year 3  96.89  Size C	Year 4  96.89  Year 4  96.89  Year 4  96.89  These values represent the cateriaty of electricity supply Note that carbon intensities v. Also note that GRET's rules	Year 5 96.89 Year 5 96.89 Year 5 96.89  Year 5 0.00000000000000000000000000000000000	kg CO2e/participant	Utilities shall file a high low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation RCIGID Jam, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resources lifecycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.  **Lusting GREET. Some default assumptions from GREET have been updated to better reflect typical expectations for RNG projects in Minnesota (e.g. GHG etc. specific projects as they are chosen (based on assumed project designs, and later updated for actual operating conditions).
INTENSITY BY	Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C Low Expected High Calculations & Other Explanation: Low Scenario Expected Scenario High Scenario	Year 1  96.89  Year 1  GRIG piets (where the units of participation are Dit of RING) piets (where the units of participation are Dit of RING) purchase (calculated as the difference between the carbon intensity score escludited from GREFF for this pilot, vs. the GREFF emission factor for geologic natural gas combustion.)  GRG Int.  Size A  kg CO2  // CO2e/Dth  66.14	Year 2 96.89 Year 2 96.89 Year 2 96.89 Year 2 96.89  Year 2 96.89  Itensity Stee 8 Pe/Dth (31)	Year 3  96.89  Year 3  96.89  Year 3  96.89  Size C  (31)	Year 4  96.89  Year 4  96.89  Year 4  96.89  Year 4  96.89  Also note that GREET's rules California LCFS Carbon internatives California CARBON CA	Year 5 96.89 Year 5 96.89 Year 5 96.89  Year 5 0.00000000000000000000000000000000000	kg CO2e/participant	Utilities shall file a high low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation RCIGID Jam, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resources lifecycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.  **Lusting GREET. Some default assumptions from GREET have been updated to better reflect typical expectations for RNG projects in Minnesota (e.g. GHG etc. specific projects as they are chosen (based on assumed project designs, and later updated for actual operating conditions).
INTENSITY BY PROJECT SIZE	Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C Low Expected High Calculations & Other Explanation: Low Scenario Expected Scenario High Scenario Default Geologic Gas Emissions Factor	Year 1  96.89  Year 1  GRIG piets (where the units of participation are Dit of RING) piets (where the units of participation are Dit of RING) purchase (calculated as the difference between the carbon intensity score escludited from GREFF for this pilot, vs. the GREFF emission factor for geologic natural gas combustion.)  GRG Int.  Size A  kg CO2  // CO2e/Dth  66.14	96.89  Year 2  96.89  Year 2  96.89  Year 2  96.89  Ste B  Re/Dth  (31)	Year 3  96.89  Year 3  96.89  Year 3  96.89  Size C  (31)	Year 4  96.89  Year 4  96.89  Year 4  96.89  Year 4  96.89  Also note that GREET's rules California LCFS Carbon internatives California CARBON CA	Year 5 96.89 Year 5 96.89 Year 5 96.89  Year 5 0.00000000000000000000000000000000000	kg CO2e/participant	Utilities shall file a high low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation RCIGID Jam, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resources lifecycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.  **Lusting GREET. Some default assumptions from GREET have been updated to better reflect typical expectations for RNG projects in Minnesota (e.g. GHG etc. specific projects as they are chosen (based on assumed project designs, and later updated for actual operating conditions).
INTENSITY BY PROJECT SIZE	Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C Low Expected High  Calculations & Other Explanation:  Low Scenario Expected Scenario High Scenario Default Geologic Gas Emissions Factor  RNG GHG factor, updated for grid mix factors 2025, 2030, and 2035 kg C02e/Di	Year 1  Year 1  96.89  Year 1  96.89  Year 1  96.89  For RNO pilots (where the units of participation are Drin of RNO parchased) the above values represent the Recycle (Calculated as the efflemence between the carbon intensity score eacludated from GRET for this pilot vs. the GRET emission factor for geologic natural gas combustion).  GHG Int.  Size A kg CO2  (31)  kg CO2e/Dth 6.14	Year 2  96.89  Year 2  96.89  Year 2  96.89  Year 2  (31)  2024-2028 period, using 2025 grid mix  -29.14	Year 3  96.89  Year 3  96.89  Year 3  96.89  Size C  (31)  2029-2033 period, using 2030 grid mix -31.42	Year 4  96.89  Year 4  96.89  Year 4  96.89  These values represent the currently of electricity supply. Note that carbon intensities Also note that Carbon intensities California LCFS Carbon intensities 2034-2038 period, using 2035 grid mix -31.44	Year 5 96.89 Year 5 96.89 Year 5 96.89 arbon intensity for this value of combined he will vary by project, an or carbon accounting lity acores.	kg CO2e/participant dg CO2e/participant dg CO2e/participant sproject/archetype, as calculated by ICT at and power on-atte vs. grid electricity, dd GREET calculations will be required for (which NGIA legislation requires Centerf	Utilities shall file a high low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation RCIGID Jam, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resources lifecycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.  **Lusting GREET. Some default assumptions from GREET have been updated to better reflect typical expectations for RNG projects in Minnesota (e.g. GHG etc. specific projects as they are chosen (based on assumed project designs, and later updated for actual operating conditions).

Calculations & Other Explanation:

PEAK REDUCTION FACTOR

	Variable O&M Cost, Applies to all project sizes	Values n	ow linked directly back to planning assump Year 1	Year 2	Year 3 4 \$ 0.04	ibits P and N into a single fil Year 4	Year 5	USD (Nominal) Cost Unit:	The CIP methodology is used	I for energy efficiency. However, the value for other innovative resourc	es should be considered in the context of	
	Calculations & Other Explanation:	Escalation rate n/a	Year 1	Year 2 -5.250	Year 3	Year 4	Year 5	(for each pilot analysis year)	specific utility proposals. For transported to customers or evaluation criteria.	example, resources like power-to-hydrogen and RNG may not decre the distribution system. Variable OSM will be used in the Utility Cos- lated using the average percent change in the price of natural gas bet	ase O&M costs as they also need to be and Non Participant Cost tests for the NGIA	
VARIABLE O&M												
NON-GAS FUEL COST	Non-Gas (i.e., Electric) Fuel Cost Calculations & Other Explanation:	\$		USD (Nominal) Cost Unit	The CIP methodology is use	ed for all resources other than ly real-time final market locat	n strategic electrificat ional marginal prices	ion. The method for strategic electrification should be (LMP) at the Minnesota Hub from January 1, 2022 to I	considered in the context of spe ecember 31, 2022 using data fro	cilic utility pilot proposals. In Midwest independent System Operator (MSO)		
NON-GAS FUEL LOSS FACTOR	Non-Gas Fuel Loss Factor <u>Calculations &amp; Other Explanation</u>			8.22%	The CIP methodology is use reported by Minnesota Pou	ed for all resources other that wer, Xcel Energy, and Otter Ta	n strategic electrificat Il Power's reported 20	ion. The method for strategic electrification should be 221 transmission and distribution loss factors and we	considered in the context of spe ghting by the utilities' 2017-2019	ncific utility pilot proposals. In the most recent CIP, Staff used the weign average retail sales	hted average of the most recent loss factors	
OTHER QUANTITATI	/F CRITFRIA:											
				USD Cost Unit:								
	Other Non-GHG Pollutants. Size A	\$		0.37 per Dth	Generally no change from C	CIP methodology. The factor i	s calculated using the	final environmental cost values approved by Minneso	ata Public Utilities Commission (C	commission). The factors are reported in 2021 dollars in Table 2 below	which were calculated by inflating the	
OTHER NON-GHG	Other Non-GHG Pollutants, Size B	\$		0.37 per Dth	Commission's approved dollar per ton environmental cost values using escalation rate to adjust by observed inflation between 2014 and 2021 Stakeholders expressed a preference for allowing cililities to select different externality values for pilots targeting or proposed preference of a llowing cililities to select different externality values for pilots targeting or proposed participation and the preference of a llowing cililities to select different externality values for pilots targeting or proposed publication and the selection of the commission's state of the pilots and the preference of a llowing cililities to select different externality values for pilots targeting a low-income population might use a high value rather than the median of the pilots of the commission's state of the pilots of							
POLLUTANTS	Other Non-GHG Pollutants, Size C	\$		0.37 per Dth	desistons such as these in their NGIA plans if they can provide justification for the change, instead of requiring the use of median metropolitan fringe values for all non-GHG pollutants, as shown in Table 1 of the Commission's Jenuery 3, 2018 Order in Docket No. E1899/C1-14-643, utilities may use the value most applicable for the pilot or measure.							
	Calculations & Other Explanation:											
	Net Direct Job Creation, Size A		Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project lif		obs created by proposed pilots and jobs that	
	Net Direct Job Creation, Size B			1	0 1	g g		9	31	81 # of jobs may be eliminated by propose	d pilots.	
	Net Direct Job Creation, Size C			0	0 13	13		12	38 1	01 # of jobs		
NET IOR CREATION	Net Indirect Job Creation, Size A		Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project lif	6 # of jobs Utilities should consider both	obs created by proposed pilots and jobs that	
ner oos skemion	Net Indirect Job Creation, Size A Net Indirect Job Creation, Size B Net Indirect Job Creation, Size C			0	0 6	6		7		# of jobs may be eliminated by propose # of jobs	a pilots.	
	Net Induced Job Creation, Size A		Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project lif	e 6 # of jobs		
	Net Induced Job Creation, Size A			1	0 6	6		6		# of jobs		
	Net Induced Job Creation, Size A	March 1	5th 2024 Update: Note that Net Job	O Creation impacts have not bee	o B on updated with the curre	nt changes to this pilot		8	24	62 # of jobs		
	Public Co-Benefits, Size A	\$	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		f this metric isn't quantifiable, there is space for any qualitative comn	ents in the Additional Qualitative	
PUBLIC CO-	Public Co-Benefits, Size B Public Co-Benefits, Size C	\$		- \$ -	\$ -	\$ -	\$ -	per year per year	Considerations section belo		400	
BENEFITS	Calculations & Other Explanation:	Φ		-   •		•	Φ -	per year				
			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:				
	Water Pollution, Size A Water Pollution, Size B	\$		- \$ -	\$ -	\$ -	\$ -	per year	The legislation left the door of	pen to quantify any costs and benefits on water pollution. This might there is space for any qualitative comments in the Additional Qualita	be quantifiable for some of the projects. If	
WATER POLLUTION	Water Pollution, Size B Water Pollution, Size C	\$		- \$ -	\$ -	\$ -	\$ -	per year per year	una memo isnt quantinable,	and a space for any quantauve comments in the Additional Qualita	vec considerations section below.	
	Calculations & Other Explanation:	<del></del>							<del></del>			
	<u> </u>											
ADDITIONAL QUALIT	ATIVE CONSIDERATIONS:											

NGIA Utility Perspective Notes:

	It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and
Definition:	quantifiable with and should be heavily informed by the structural values and OP quantification methods
Definition.	Or qualification metricus.
NGIA Participants' Perspective Notes:	
Definition:	It is expected that many of the elements of the participant perspective, with respect to the direct effect of pilots, will be quantifiable. For example, increased comfort in a
	home and health benefits from pilots that improve indoor air quality are two examples of benefits that may be difficult to quantify.
NGIA Nonparticipating	
NGIA Nonparticipating Customers'	
Perspective Notes:	I No. 10 and the first of the second of the
	As with the utility perspective, the direct effects of pilot programs on non- participating customers should be quantified in most cases and can be heavily
Definition:	informed by structural values.
	Provides widespread benefits to all sales customers
Effects on Other	
Energy Systems and Energy	
and Energy	
Security: Definition:	
	NGIA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the electric system. Further, the NGIA empowers the Commission to consider a wide variety of "costs and benefits that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel markets.
	Now, empower the commission to consider a wear variety or costs and defends that may be expected under a pair, one of which is a reduction of reliance on imported resources and national tide makes.  Full made in Man direduces import of fuel from outside of MN.
GHG Emissions Notes:	
Definition:	An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion
	of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.
Other Pollution	
Notes: Definition:	
Deninition.	Include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.
Masta Dadustian	
Waste Reduction and Reuse Notes:	
Definition	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA Includes reduction of water use.
Definition:	reduction of water use.
Definition:	
Definition:	reduction of water use.
Definition: Policy Notes:	reduction of water use.  Supports community organics recycling
	Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals
	Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable resources.
Policy Notes:	reduction of water use.  Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable
Policy Notes:	Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable resources.
Policy Notes:	Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable resources.
Policy Notes:  Definition:	Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable resources.
Policy Notes:	Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable resources.
Policy Notes: Definition: Net Job Creation	Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable resources.  Reduces fossil gas throughput; avoids landfilling increases use of renewable energy  An imposation plan must include, as applicable, "projected local job impacts
Policy Notes:  Definition:  Net Job Creation. Notes:	Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable resources.  Reduces fossil gas throughput; avoids landfilling increases use of renewable energy  An innovation plan must include, as applicable, "projected local job impacts
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Policy Notes:  Definition:  Net Job Creation. Notes:	Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable resources.  Reduces fossil gas throughput; avoids landfilling increases use of renewable energy  An imposation plan must include, as applicable, "projected local job impacts
Policy Notes:  Definition:  Net Job Creation. Notes:	Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable resources.  Reduces fossil gas throughput; avoids landfilling increases use of renewable energy  An imposation plan must include, as applicable, "projected local job impacts
Policy Notes:  Definition:  Net Job Creation. Notes:  Definition:	Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable resources.  Reduces fossil gas throughput; avoids landfilling increases use of renewable energy  An imposation plan must include, as applicable, "projected local job impacts
Policy Notes:  Definition:  Net Job Creation.  Notes:  Cefinition:  Economic.  Development.	Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable resources.  Reduces fossil gas throughput; avoids landfilling increases use of renewable energy  An imposation plan must include, as applicable, "projected local job impacts
Policy Notes:  Definition:  Net Job Creation. Notes:  Definition:	Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable resources.  Reduces fossil gas throughput; avoids landfilling increases use of renewable energy  An imposation plan must include, as applicable, "projected local job impacts
Policy Notes: Definition:  Net Job Creation Notes: Definition: Economic Development	Supports community organics recycling  NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable resources.  Reduces fossil gas throughput; avoids landfilling; increases use of renewable energy  An innovation plan must include, as applicable, "projected local job impacts resulting from implementation of the plan". Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.

Supports local government waste management

May produce biochar

# Direct Innovation Support Notes: Definition:

are intended to lead to future opportunities.

Opportunity for Company to learn about purchasing RNG

meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state. Realistic pathways to decarbonization include RNG

>ICF		Click here to go back to the list of all pilots	į					NGIA Pilot Profiles Workbook		
7ICF	CNPO3 - RNG Archetype - Wastewater Resource Recovery Facility									
	Pilot Project Code:	CNP03								
	Pilot Project Name:	RNG Archetype - Wastewater Resour	rce							
	Customer Class/ Sector:	Recovery Facility C&I & Res								
	Low-Income Community Benefit?	N N								
	Target Area:	Territory-wide								_
	Primary Innovative Resource Category:	Renewable Natural Gas (RNG)	Sel	lect primary Innovation Cate	gory. Others can be l	isted here:				=
										-
	<u>Pilot Description:</u> For Pilots 3-6, the "RNG Archetypes", CenterPoint Energy would purchase RNG -	including the commodity and environm	ental attributes -	from multiple PNG producer	s that have develone	d PNG projects using a variety	v of foodstocks	CNP may also support RNG project d	evelopment by directly investing in the biogas ungrading	
	equipment (required to produce pipeline-quality RNG) for a limited number of R	(NG projects, to reduce developers' requ	uired capital. We h	have developed an estimate	of expected carbon i	ntensity for each type of feed	stock to inform	our analysis of potential GHG reduction	ons from a portfolio of RNG purchases.	
		., ,			,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		, ,		
DESCRIPTION										
	Overview of Program/ Implementation Approach:									-
	CenterPoint Energy would likely issue a request for proposals (RFP) from RNG pr	roject developers. The RFP process wou'	id help CenterPoir	nt Energy to maximize cost-e	effectiveness by build	ding a portfolio of RNG purcha	ases from a vari	ety of projects and under customized	contract terms.	
	Other Comments / Information:									-
	For the purposes of this analysis, assumes offtake from developer or other entit	,, not capital investment from CNP.								
KEY PILOT-SPECIFIC	INPUTS:									
	Pilot Year	Year 1		Year 2	Year 3	Year 4	Year 5			
	Calendar Year	real 1	2024	2025	2026	2027	202	3		
	Participating Units, Size A			10,000				Dekatherms of gas purchased as offtake in s.	ingle year. Incremental units added, annual (not cumulative).	
	Participating Units, Size B			50,000				Note this represents the annual PNG (Oth)/w	ear) that will be purchased through a multi-year agreement (project life define	uf halow) etarting in this year
	Participating Units, Size C	II-in-h	(200	300,000		1-1		roce, this represents the arrival rives (but ye	any that will be parenased through a matery our agreement (project me define	d below, starting in this year.
	Calculations & Other Explanation:	Units above are to annual dekathers Sizes are placeholder assumptions to	ns of RNG supply	y (shown only for the year s	A rules require at lear	ts) et half of the budget to be for	low-carbon fue	Is like PNG and Hudrogan)		
	Succession & Street Explanation.	Sizes are placeriolder assumptions to	snow a range or r	KNO parchase volumes (No.	A rules require acreas	scriaii or the budget to be for	iow-carbon rue	is, like Kiva alia Hydrogerij.		
NUMBER OF		Year 1		Year 2	Year 3	Year 4	Year 5			
PARTICIPANTS	Cumulative RNG Supply (Dth/year), Size		-	10,000	10,000	10,000	10,000			408,750
	Cumulative RNG Supply (Dth/year), Size Cumulative RNG Supply (Dth/year), Size		-	50,000 300,000	50,000 300,000	50,000 300,000	50,000 300,000			
	Cumulative RNG Supply (Dtil) year ), Size		-	300,000	300,000	300,000	300,000			
	Assumed Number of GHG Verifications Required, Size		0	1	1	1		•		
	Assumed Number of GHG Verifications Required, Size		0	2	2	2 3			ould be needed, conservatively assuming multiple verifications.	
	Assumed Number of GHG Verifications Required, Size (	2:	0	3	3	3		Uncertain how many RNG projects w	ould be needed, conservatively assuming multiple verifications.	
			•							
	Annual Total Utility Incremental Cost, Size A	Year 1	12,250   \$	Year 2 203.742   \$	Year 3 212,477	Year 4	Year 5	USD (Nominal) Cost Unit: total cost per year		
	Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B	\$	12,250 \$	889.283 \$	905,402	\$ 215,283 \$	929.718	total cost per year total cost per year		budget cap for this measure and will be used in the Utility Cost, and Non m of utility admin costs to run pilot, any incentive funding to support project
	Annual Total Utility Incremental Cost, Size C	\$	12,250 \$	4,978,490 \$	5,052,429	\$ 5,125,297 \$	5,194,372	total cost per year	deployment, and/or the utility's annual revenue requirement for cap	sital investments made on select pilots.
	Fixed O&M Cost. Size A	Year 1	12.250 \$	Year 2 203.742 \$	Year 3 212.477	Year 4 \$ 215.283 \$	Year 5	USD (Nominal) Cost Unit: total cost per year	5 400M2 with the first Turk to 100 to	vertising and Promotions, Utility Administration, Trade Ally Incentives, and
	Fixed O&M Cost, Size B	\$	12,250 \$	889.283 \$	905.402	\$ 917.871 \$	929.718	total cost per year	Workforce Development of Market Transformation Cost	vertising and Promotions, Utility Administration, Trade Ally Incentives, and
	Fixed O&M Cost, Size C	\$	12,250 \$	4,978,490 \$	5,052,429	\$ 5,125,297 \$	5,194,372	total cost per year		
									<del></del>	
		Year 1	12,250 \$	Year 2	Year 3	Year 4 \$ 215 283   \$	Year 5	USD (Nominal) Cost Unit:		
	Total Project Delivery, Size A Total Project Delivery, Size B	\$	12,250 \$	203,427 \$ 888,801 \$	905,402		217,974	per year per year	Total internal and external project delivery	
	Total Project Delivery, Size B Total Project Delivery, Size C	\$	12,250 \$							
	Total Troject Bellvery, GIZO O			4.977.657 \$	5.052.429		5.194.372	per year per vear		
			12,250 \$	4,977,657 \$	5,052,429		5,194,372	per year		
		Year 1		Year 2	Year 3	\$ 5,125,297 <b>\$</b> Year 4	5,194,372 Year 5	per year USD (Nominal) Cost Unit:		
	Internal Project Delivery, Size A	Year 1	12,250  \$	Year 2 4,996   \$	Year 3 12,996	\$ 5,125,297 \$ Year 4 \$ 13,386 \$	5,194,372 Year 5 13,787	per year  USD (Nominal) Cost Unit:  per year	CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" or	ategory above.
	Internal Project Delivery, Size B	Year 1 \$ \$ \$ \$ \$ \$ \$	12,250 \$ 12,250 \$	Year 2 4,996 \$ 7,644 \$	Year 3 12,996 12,996	\$ 5,125,297 \$ Year 4 \$ 13,386 \$ \$ 13,386 \$	5,194,372 Year 5 13,787 13,787	per year  USD (Nominal) Cost Unit: per year per year	CNP staff. These costs are sub-set of the Utility Yield O&M Cost* of	ategory above.
		Year 1 \$ \$ \$ \$ \$ \$	12,250  \$	Year 2 4,996   \$	Year 3 12,996	\$ 5,125,297 \$ Year 4 \$ 13,386 \$ \$ 13,386 \$	5,194,372 Year 5 13,787 13,787	per year  USD (Nominal) Cost Unit:  per year	CNP staff. These costs are sub-set of the URBy Tived OSM Cost* c	ategory above.
	Internal Project Delivery, Size B Internal Project Delivery, Size C	Year 1 S S S Year 1	12,250 \$ 12,250 \$	Year 2 4,996 \$ 7,644 \$ 13,218 \$	Year 3 12,996 12,996 12,996 Year 3	\$ 5,125,297 \$  Year 4  \$ 13,386 \$ \$ 13,386 \$  Year 4	5,194,372  Year 5  13,787  13,787  Year 5  Year 5	per year  USD (Nominal) Cost Unit: per year per year per year USD (Nominal) Cost Unit:		
	Internal Project Delivery, Size B Internal Project Delivery, Size C External Project Delivery, Size A	\$	12,250 \$ 12,250 \$	Year 2  4,996 \$ 7,644 \$ 13,218 \$  Year 2  198,431 \$	Year 3 12,996 12,996 12,996 Year 3	\$ 5,125,297 \$  Year 4 \$ 13,386 \$ \$ 13,386 \$ \$ 13,386 \$  Year 4 \$ 201,897 \$	5,194,372  Year 5  13,787  13,787  13,787  Year 5  204,186	per year  USD (Nominal) Cost Unit: per year per year per year USD (Nominal) Cost Unit: per year	External vendor costs would include direct install costs where CNP	ategory above.  reimburses the vendor. These costs are sub-set of the URBy Tised OSM
	Internal Project Delivery, Size B Internal Project Delivery, Size C  External Project Delivery, Size A External Project Delivery, Size B	\$	12,250 \$ 12,250 \$	Year 2  4,996 \$ 7,644 \$ 13,218 \$  Year 2  198,431 \$ 881,156 \$	Year 3 12,996 12,996 12,996 Year 3 199,481 892,405	\$ 5,125,297 \$  Year 4 \$ 13,386 \$ \$ 13,386 \$ \$ 13,386 \$  Year 4 \$ 20,897 \$ \$ 904,485 \$	5,194,372  Year 5 13,787 13,787 13,787  Year 5 204,186 915,931	per year  USD (Nominal) Cost Unit: per year per year per year USD (Nominal) Cost Unit: per year		
	Internal Project Delivery, Size B Internal Project Delivery, Size C External Project Delivery, Size A	\$	12,250 \$ 12,250 \$	Year 2  4,996 \$ 7,644 \$ 13,218 \$  Year 2  198,431 \$	Year 3 12,996 12,996 12,996 Year 3	\$ 5,125,297 \$  Year 4 \$ 13,386 \$ \$ 13,386 \$ \$ 13,386 \$  Year 4 \$ 20,897 \$ \$ 904,485 \$	5,194,372  Year 5 13,787 13,787 13,787  Year 5 204,186 915,931	per year  USD (Nominal) Cost Unit: per year per year per year USD (Nominal) Cost Unit: per year	External vendor costs would include direct install costs where CNP	
	Internal Project Delivery, Size B Internal Project Delivery, Size C  External Project Delivery, Size A External Project Delivery, Size B	\$	12,250 \$ 12,250 \$	Year 2  4,996   \$ 7,644   \$ 13,218   \$  Year 2  198,431   \$ 881,156   \$ 4,964,439   \$  Year 2	Year 3 12,996 12,996 12,996 Year 3 199,481 892,405	\$ 5,125,297 \$  Year 4 \$ 13,386 \$ \$ 13,386 \$ \$ 13,386 \$  Year 4 \$ 20,897 \$ \$ 904,485 \$	5,194,372  Year 5 13,787 13,787 13,787  Year 5 204,186 915,931	per year  USD (Nominal) Cost Unit: per year per year per year USD (Nominal) Cost Unit: per year	External vendor costs would include direct install costs where CNP	
	Internal Project Delivery, Size B Internal Project Delivery, Size C  External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size C  Advertising and Promotions, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	12,250 \$ 12,250 \$	Year 2  4,996 \$ 7,644 \$ 13,218 \$  Year 2  198,431 \$ 881,156 \$ 4,964,439 \$  Year 2  315 \$	Year 3 12,996 12,996 12,996 Year 3 199,481 892,405 5,039,433	Year 4    13,386   \$   13,386   \$   13,386   \$   13,386   \$   13,386   \$   13,386   \$   20,389   \$   40,485   \$   5,111,911   \$   5,111,911   \$   1,111,111,111,111,111,111,111,111,111,	5,194,372  Year 5 13,787 13,787 13,787  Year 5 204,186 915,931 5,180,585	per year  USD (Nominal) Cost Unit:  per year  per year  USD (Nominal) Cost Unit:  per year  USD (Nominal) Cost Unit:  per year  per year  per year  per year  per year  per year	External vendor costs would include direct install costs where CNP	reimburses the vendur. These costs are sub-set of the URBIN 'Fixed OSM
	Internal Project Delivery, Size B Internal Project Delivery, Size C External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size C Advertising and Promotions, Size A Advertising and Promotions, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	12,250 \$ 12,250 \$	Year 2  4,996   \$ 7,944   \$ 13,218   \$  Year 2  198,431   \$ 881,55   \$ 4,964,439   \$  Year 2  315   \$ 482   \$  482   \$	Year 3 12,996 12,996 12,996 Year 3 199,481 892,405 5,039,433	Year 4    13,386   \$   13,386   \$   13,386   \$   13,386   \$   13,386   \$   13,386   \$   20,389   \$   40,485   \$   5,111,911   \$   5,111,911   \$   1,111,111,111,111,111,111,111,111,111,	5,194,372  Year 5 13,787 13,787 13,787  Year 5 204,186 915,931 5,180,585	per year  USD (Nominal) Cost Unit: per year per year per year USD (Nominal) Cost Unit: per year per year USD (Nominal) Cost Unit: per year per year per year per year	External vendor costs would include direct install costs where CNP Cost category above.	reimburses the vendor. These costs are sub-set of the Utility Fised OSM
	Internal Project Delivery, Size B Internal Project Delivery, Size C  External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size C  Advertising and Promotions, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	12,250 \$ 12,250 \$	Year 2  4,996 \$ 7,644 \$ 13,218 \$  Year 2  198,431 \$ 881,156 \$ 4,964,439 \$  Year 2  315 \$	Year 3 12,996 12,996 12,996 Year 3 199,481 892,405 5,039,433	Year 4    13,386   \$   13,386   \$   13,386   \$   13,386   \$   13,386   \$   13,386   \$   20,389   \$   40,485   \$   5,111,911   \$   5,111,911   \$   1,111,111,111,111,111,111,111,111,111,	5,194,372  Year 5 13,787 13,787 13,787  Year 5 204,186 915,931 5,180,585	per year  USD (Nominal) Cost Unit:  per year  per year  USD (Nominal) Cost Unit:  per year  USD (Nominal) Cost Unit:  per year  per year  per year  per year  per year  per year	External vendor costs would include direct install costs where CNP Cost category above.	reimburses the vendor. These costs are sub-set of the Utility Fised OSM
	Internal Project Delivery, Size B Internal Project Delivery, Size C External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size C Advertising and Promotions, Size A Advertising and Promotions, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	12,250 \$ 12,250 \$	Year 2	Year 3 12,996 12,996 12,996 12,996 Year 3 199,481 892,405 5,039,433 Year 3	Year 4    13,386   \$   13,386   \$   13,386   \$   13,386   \$   13,386   \$   13,386   \$   20,389   \$   40,485   \$   5,111,911   \$   5,111,911   \$   1,111,111,111,111,111,111,111,111,111,	5,194,372  Year 5 13,787 13,787 13,787  Year 5 204,186 915,931 5,180,585	per year  USD (Nominal) Cost Unit: per year per year USD (Nominal) Cost Unit: per year  USD (Nominal) Cost Unit: per year  USD (Nominal) Cost Unit: per year per year  USD (Nominal) Cost Unit: per year per year	External vendor costs would include direct install costs where CNP Cost category above.	reimburses the vendor. These costs are sub-set of the Utility Fised OSM
	Internal Project Delivery, Size B Internal Project Delivery, Size C External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size C Advertising and Promotions, Size A Advertising and Promotions, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	12,250 \$ 12,250 \$	Year 2  4,996   \$ 7,944   \$ 13,218   \$  Year 2  198,431   \$ 881,55   \$ 4,964,439   \$  Year 2  315   \$ 482   \$  482   \$	Year 3 12,996 12,996 12,996 Year 3 199,481 892,405 5,039,433	\$ 5,125,297 \$  Year 4  \$ 201,897 \$  Year 4  \$ 904,485 \$  \$ 5,111,911 \$  Year 4  \$ 5 - \$  \$ - \$  \$ - \$	5,194,372  Year 5 13,787 13,787 13,787  Year 5 204,186 915,931 5,180,585  Year 5	per year  USD (Nominal) Cost Unit: per year per year per year USD (Nominal) Cost Unit: per year per year USD (Nominal) Cost Unit: per year per year per year per year	External vendor costs would include direct install costs where CNP Cost category above.	reimburses the vendor. These costs are sub-set of the URBity Tised OSM sove.
	Internal Project Delivery, Size B Internal Project Delivery, Size C External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size C Advertising and Promotions, Size A Advertising and Promotions, Size B Advertising and Promotions, Size C  Allocation of General Portfolio Costs, Size A Allocation of General Portfolio Costs, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	12,250 \$ 12,250 \$	Year 2	Year 3 12,996 12,996 12,996 12,996 Year 3 199,481 892,405 5,039,433 Year 3	\$ 5,125,297 \$  Year 4  \$ 201,897 \$  Year 4  \$ 904,485 \$  \$ 5,111,911 \$  Year 4  \$ 5 - \$  \$ - \$  \$ - \$	5,194,372  Year 5 13,787 13,787 13,787  Year 5 204,186 915,931 5,180,585  Year 5	Der year  USD (Nominal) Cost Unit:  Der year  Der year  USD (Nominal) Cost Unit:  Der year  Der year  USD (Nominal) Cost Unit:  Der year  Der year  Der year  Der year  Der year	Esternal vendor costs would include direct install costs where CNP Cost category above.  These costs are sub-set of the Utility Tiwed OSM Cost category ab	reimburses the vendor. These costs are sub-set of the Utility Tixed OSM
	Internal Project Delivery, Size B Internal Project Delivery, Size C  External Project Delivery, Size A External Project Delivery, Size A External Project Delivery, Size C  Advertising and Promotions, Size A Advertising and Promotions, Size B Advertising and Promotions, Size C  Allocation of General Portfolio Costs, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	12,250 \$ 12,250 \$	Year 2	Year 3 12,996 12,996 12,996 12,996 Year 3 199,481 892,405 5,039,433 Year 3	\$ 5,125,297 \$  Year 4  \$ 201,897 \$  Year 4  \$ 904,485 \$  \$ 5,111,911 \$  Year 4  \$ 5 - \$  \$ - \$  \$ - \$	5,194,372  Year 5  13,787  13,787  Year 5  204,186  915,931  5,180,585  Year 5	per year  USD (Nominal) Cost Unit: per year per year  USD (Nominal) Cost Unit: per year  USD (Nominal) Cost Unit: per year per year per year  USD (Nominal) Cost Unit: per year per year  USD (Nominal) Cost Unit: per year	Esternal vendor costs would include direct install costs where CNP Cost category above.  These costs are sub-set of the Utility Tiwed OSM Cost category ab	reimburses the vendor. These costs are sub-set of the URBity Tised OSM sove.
	Internal Project Delivery, Size B Internal Project Delivery, Size C External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size C Advertising and Promotions, Size A Advertising and Promotions, Size B Advertising and Promotions, Size C  Allocation of General Portfolio Costs, Size A Allocation of General Portfolio Costs, Size A	S	12,250 \$ 12,250 \$	Year 2  4,996   \$ 7,644   \$ 13,218   \$  Year 2  188,431   \$ 881,55   \$ 4,964,439   \$  Year 2  315   \$ 482   \$ 833   \$  Year 2	Year 3 12.996 12.996 12.996 12.996 Year 3 199,481 892,405 5,039,433 Year 3	\$ 5,125,297 \$  Year 4  \$ 13,386 \$ \$ \$ 13,386 \$ \$  Year 4  \$ 20,1897 \$ \$  \$ 904,485 \$ \$  \$ 904,485 \$ \$  \$ 94,485 \$ \$  \$ 5 - \$  \$ 5 - \$  \$ 7	5,194,372 Year S 13,787 13,787 13,787 13,787 204,186 915,931 5,180,585 Year S Year S	Der year  USD (Nominal) Cost Unit:  Der year  Der year  Der year  USD (Nominal) Cost Unit:  Der year  Der year  USD (Nominal) Cost Unit:  Der year  USD (Nominal) Cost Unit:  Der year  USD (Nominal) Cost Unit:  Der year  Der year	Esternal vendor costs would include direct install costs where CNP Cost category above.  These costs are sub-set of the Utility Tiwed OSM Cost category ab	reimburses the vendor. These costs are sub-set of the URBity Tised OSM
	Internal Project Delivery, Size B Internal Project Delivery, Size C External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size C Advertising and Promotions, Size A Advertising and Promotions, Size B Advertising and Promotions, Size C  Allocation of General Portfolio Costs, Size A Allocation of General Portfolio Costs, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	12,250 \$ 12,250 \$	Year 2	Year 3 12,996 12,996 12,996 12,996 Year 3 199,481 892,405 5,039,433 Year 3	\$ 5,125,297 \$  Year 4  \$ 201,897 \$  Year 4  \$ 904,485 \$  \$ 5,111,911 \$  Year 4  \$ 5 - \$  \$ - \$  \$ - \$	5,194,372  Year 5  13,787  13,787  Year 5  204,186  915,931  5,180,585  Year 5	Der year  USD (Nominal) Cost Unit:  Der year  Der year  USD (Nominal) Cost Unit:  Der year  Der year  USD (Nominal) Cost Unit:  Der year  Der year  Der year  Der year  Der year	Esternal vendor costs would include direct install costs where CNP Cost category above.  These costs are sub-set of the Utility Tiwed OSM Cost category ab	reimburses the vendor. These costs are sub-set of the Utility Tixed O&M tove.  Liletory costs, and general portfolio costs
	Internal Project Delivery, Size B Internal Project Delivery, Size C External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size C Advertising and Promotions, Size A Advertising and Promotions, Size B Advertising and Promotions, Size C Allocation of General Portfolio Costs, Size A Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs, Size C	S	12,250 \$ 12,250 \$	Year 2  4,996   \$ 7,644   \$ 13,218   \$  Year 2  188,431   \$ 881,55   \$ 4,964,439   \$  Year 2  315   \$ 482   \$ 833   \$  Year 2	Year 3 12.996 12.996 12.996 12.996 Year 3 199,481 892,405 5,039,433 Year 3	\$ 5,125,297 \$  Year 4  \$ 13,386 \$ \$ \$ 13,386 \$ \$  Year 4  \$ 20,1897 \$ \$  \$ 904,485 \$ \$  \$ 904,485 \$ \$  \$ 94,485 \$ \$  \$ 5 - \$  \$ 5 - \$  \$ 7	5,194,372 Year S 13,787 13,787 13,787 13,787 204,186 915,931 5,180,585 Year S Year S	per year  USD (Nominal) Cost Unit: per year per year USD (Nominal) Cost Unit: per year USD (Nominal) Cost Unit: per year per year per year USD (Nominal) Cost Unit: per year	Esternal vendor costs would include direct install costs where CNP Cost category above.  These costs are sub-set of the Utility Fixed OSM Cost category at Share of portfolio level costs, including plan development costs, reg	reimburses the vendor. These costs are sub-set of the Utility Tixed O&M tove.  Liletory costs, and general portfolio costs

		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Workforce Development or Market Transformation Cost, Size A	\$	- \$	-	- \$	-	\$ -	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Workforce Development or Market Transformation Cost, Size B Workforce Development or Market Transformation Cost, Size C	\$	- \$		S - S		\$ -	per year	
	Worklorde Development of Market Transformation Cost, Size C	ų.	- 4		9		-	per year	
UTILITY PILOT		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
COSTS	Other Fixed O&M Cost, Size A	\$	- \$		\$ - \$	-	\$ -	per year	These costs are sub-set of the Utility 'Fixed O&M Cost' category above.
	Other Fixed O&M Cost, Size B Other Fixed O&M Cost, Size C	\$	- \$		S - S		s -	per year per year	_
	Salet Fixed Salet South State S		1.		1.		-		_
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	_
	Total utility capital investment, Size A Total utility capital investment, Size B	\$	- \$		S - S		\$ -	per year per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital
	Total utility capital investment, Size B	\$	- \$	-	\$ - \$	-	\$ -	per year	investments (shown below).
		+			*				=
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	<b></b>
	Est. Annual Revenue Requirement for Capital Projects, Size A  Est. Annual Revenue Requirement for Capital Projects. Size B	\$	- \$		S - S		\$ -	per year per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as well as the utility "Fixed O&M Costs" captured above. This revenue requirement is calculated from the magnitude & timing of capital investment
	Est. Annual Revenue Requirement for Capital Projects, Size C	\$	- \$	-	\$ - \$	-	\$ -	per year	captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
		Total	uen /	(Nominal) Cost Unit					
	Est. Total Revenue Requirement for Capital Projects, Size A	\$	- per ye						The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected measure
	Est. Total Revenue Requirement for Capital Projects, Size B	\$	- per ye		_				life (and decreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to calculate any
	Est. Total Revenue Requirement for Capital Projects, Size C	\$	- per ye	ear					of the NGIA evaluation criteria.
		W		V 2	V 9	W 4	V	1100 (11 - 11 - 1) 0 11 - 11	
	Incentives, Size A	Year 1	- \$	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc). Do not include
	Incentives, Size B	\$	- \$	-	\$ - \$	-	\$ -	per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install
	Incentives, Size C	\$	- \$	-	- \$	-	\$ -	per year	measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will be used in the Participant Cost tests for the NGIA evaluation criteria.
	Incentives per Participant, Size A	Year 1 #DIV/O!	T e	Year 2	Year 3 #DIV/O!	Year 4 #DIV/O!	Year 5 #DIV/O!	USD (Nominal) Cost Unit: per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size A	#DIV/0:	\$		#DIV/O!	#DIV/O!	#DIV/O!	per participant per year	ancentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size C	#DIV/O!	\$	-	#DIV/0!	#DIV/O!	#DIV/0!	per participant per year	
		<b>!</b>			*		•	*	=
	Calculations & Other Explanation:	Year 1		Year 2	Year 3	Year 4	Year 5		
	RNG Contract Purchase Cos	st: \$	21.00 \$		D \$ 21.00 \$	21.00	\$ 21.00	per Dth (1 Dth = 1 MMBtu)	
									Note - in original Exhibit N these were based on a fixed value for Year 1, but in this combined file they have been linked
									to the 'Planning Assumptions' from Exhibit P so that commodity price updates are automatically reflected here. This
	Geologic Gas Cos		513 \$	4.9	6 \$ 460 \$	436	e 410	per Dth	formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG Year 1 Commodity costs in the original filing.
	Incremental Fuel Cos	st: \$	15.87 \$		4 \$ 16.40 \$	16.64		7 per Dth	Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that ne
	Incremental Fuel Cost - Average over Contract Life (based on contract star								
	year		16.63 \$	16.7		16.85		7 per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	year	r): \$			3 \$ 16.80 \$				Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	year  M-RETS RTC On-going Registration Cost:	r): \$ ts:		n, for all Dth produce	3 \$ 16.80 \$				Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	year	r): \$ ts:	\$0.05 \$/Dth	n, for all Dth produce	3 \$ 16.80 \$				Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	year  M-RETS RTC On-going Registration Cost:	r): \$ ts:	\$0.05 \$/Dth	n, for all Dth produce	3 \$ 16.80 \$				Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	year  M-RETS RTC On-going Registration Cost:	r): \$ ts:	\$0.05 \$/Dth	n, for all Dth produce	3 \$ 16.80 \$				Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	year  M-RETS RTC On-going Registration Cost:	r): \$ ts: ts:	\$0.05 \$/Dth	n, for all Dth produce time upfront	3 \$ 16.80 \$	16.85			Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	year M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs	r): \$ ts: ts:	\$0.05 \$/Dth \$1,500 One t	n, for all Dth produce time upfront	3 \$ 16.80 \$ d each year  Green-E or other cost for	16.85 project verification	\$ 16.87	per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	year M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs Project Verification Costs	r): \$ ts: ts:	\$0.05 \$/Dth \$1,500 One t \$35,000 \$/yea	n, for all Dth produce time upfront ar Year 2	3 \$ 16.80 \$ d each year  Green-E or other cost for  Year 3	16.85 project verification Year 4	\$ 16.81	7 per Dth  USD (Nominal) Cost Unit:	
	year M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs Project Verification Costs	r): \$ ts: ts:	\$0.05 \$/Dth \$1,500 One t \$35,000 \$/yes	n, for all Dth produce time upfront  Year 2	3 \$ 16.80 \$ d each year  Green-E or other cost for  Year 3 7 \$ 168   \$	oroject verification Year 4	\$ 16.81	USD (Nominal) Cost Unit:	This recresents the total equipment and installation costs for technologies inclemented as part of this plot face-lifeally non-utility capital
	year M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs Project Verification Costs	r): \$ ts: ts:	\$0.05 \$/Dth \$1,500 One t \$35,000 \$/yea	n, for all Dth produce time upfront ar Year 2	3 \$ 16.80 \$ d each year  Green-E or other cost for  Year 3 7 \$ 168   \$	16.85 project verification Year 4	\$ 16.81	7 per Dth  USD (Nominal) Cost Unit:	
	year  M-RETS RTC On-going Registration Costs  M-RETS RTC Upfront Registration Costs  Project Verification Costs  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B	r): \$ ts:  Year 1 \$ \$ \$ \$	\$0.05 \$/Dth \$1,500 One t \$35,000 \$/yes	n, for all Dth produce time upfront  ar  Year 2  16  16  16	3 \$ 16.80 \$ d each year  Green-E or other cost for Year 3  7   \$ 168   \$ 7 \$ 168   \$ 7 \$ 168   \$ 5 \$	oroject verification Year 4 168 168	Year 5 \$ 168: \$ 168: \$ 168: \$ 168:	USD (Nominal) Cost Unit:    Der participant   De	This recresents the total equipment and installation costs for technologies inclemented as part of this plot face-lifeally non-utility capital
	W-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size C	r): \$ ts: ts:	\$0.05 \$/Dth \$1,500 One t \$35,000 \$/yes	n, for all Dth produce time upfront  Year 2	3 \$ 16.80 \$ d each year  Green-E or other cost for  Year 3 7 \$ 168   \$	oroject verification Year 4	\$ 16.81	USD (Nominal) Cost Unit:  USD (Nominal) Cost Unit:  Der participant  Der participant  Der participant  DUSD (Nominal) Cost Unit:	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
	year  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A	r): \$ ts:  Year 1 \$ \$ \$ \$	\$0.05 \$/Dth \$1,500 One t \$35,000 \$/yes	n, for all Dth produce time upfront  ar  Year 2  16  16  16	3 \$ 16.80 \$ d each year  Green-E or other cost for Year 3  7   \$ 168   \$ 7 \$ 168   \$ 7 \$ 168   \$ 5 \$	oroject verification Year 4 168 168	Year 5 \$ 168: \$ 168: \$ 168: \$ 168:	USD (Nominal) Cost Unit:    per participant     per participant     per participant     per participant     per participant     per participant     USD (Nominal) Cost Unit:     per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it is not
TOTAL AND DIRECT	year  M-RETS RTC On-going Registration Costs  M-RETS RTC Upfront Registration Costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B	r): \$ ts:  Year 1 \$ \$ \$ \$	\$0.05 \$/Dth \$1,500 One t \$35,000 \$/yes	n, for all Dth produce time upfront  ar  Year 2  16  16  16	3 \$ 16.80 \$ d each year  Green-E or other cost for Year 3  7   \$ 168   \$ 7 \$ 168   \$ 7 \$ 168   \$ 5 \$	oroject verification Year 4 168 168	Year 5 \$ 168: \$ 168: \$ 168: \$ 168:	USD (Nominal) Cost Unit:   per participant   per participant     per participant     per participant     per participant     per participant     per participant     per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
PARTICIPANT PILOT	year  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A	r): \$ ts:  Year 1 \$ \$ \$ \$	\$0.05 \$/Dth \$1,500 One t \$35,000 \$/yes	n, for all Dth produce time upfront  ar  Year 2  16  16  16	3 \$ 16.80 \$ d each year  Green-E or other cost for Year 3  7   \$ 168   \$ 7 \$ 168   \$ 7 \$ 168   \$ 5 \$	oroject verification Year 4 168 168	Year 5 \$ 168: \$ 168: \$ 168:	USD (Nominal) Cost Unit:    per participant     per participant     per participant     per participant     per participant     per participant     USD (Nominal) Cost Unit:     per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it is not
	year  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A	Year 1 \$ \$  Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0.05 \$/Dth \$1,500 One t \$35,000 \$/yes	n, for all Dth produce time upfront  Year 2  16  16  Year 2  Year 2	Green-E or other cost for   Year 3	16.85  Vear 4  168  Vear 4  Year 4	Year S S 168: S 168: S 168: Year S S - S - S -	USD (Nominal) Cost Unit:    Der participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it is not
PARTICIPANT PILOT	year  M-RETS RTC On-going Registration Costs  M-RETS RTC Upfront Registration Costs  Project Verification Costs.  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size C  Description of source of external funding:	r): \$ ts:  Year 1 \$ \$ \$ \$	\$0.05 \$/Dth \$1,500 One t \$35,000 \$/yes	n, for all Dth produce time upfront  ar  Year 2  16  16  16	3 \$ 16.80 \$ d each year  Green-E or other cost for Year 3  7   \$ 168   \$ 7 \$ 168   \$ 7 \$ 168   \$ 5 \$	oroject verification Year 4 168 168	Year 5 \$ 168: \$ 168: \$ 168:	USD (Nominal) Cost Unit:    Der participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it is not used to calculate any of the NGIA evaluation criteris.
PARTICIPANT PILOT	year  M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A	Year 1 \$ \$  Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0.05 \$/Dth \$1,500 One t \$35,000 \$/yes	n, for all Dth produce time upfront  Year 2  16  16  Year 2  Year 2	Green-E or other cost for   Year 3	16.85  Vear 4  168  Vear 4  Year 4	Year S S 168: S 168: S 168: Year S S - S - S -	USD (Nominal) Cost Unit:   per participant     per participant     per participant     per participant     per participant     per participant     Des participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecilically non-utility capital projects that were captured asparately above). This cost does not account for what portion of costs may be covered by utility incentives, nor activate utility program admin costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT	W-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs  Project Verification Costs Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A	Year 1 \$ \$  Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0.05 \$/Dth \$1,500 One t \$35,000 \$/yes	n, for all Dth produce time upfront  Year 2  16  16  Year 2  Year 2	Green-E or other cost for   Year 3	16.85  Vear 4  168  Vear 4  Year 4	Year S S 168: S 168: S 168: Year S S - S - S -	USD (Nominal) Cost Unit:    Der participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-stillty capital project that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RIA etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted.
PARTICIPANT PILOT	year  M-RETS RTC On-going Registration Costs  M-RETS RTC Upfront Registration Costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B	Year 1 \$  Year 1	\$0.05 \$/Dth \$1,500 One t \$35,000 \$/yes	n, for all Dth produce time upfront  Year 2  16  16  Year 2  Year 2  Year 2  Year 2  Year 3	Green-E or other cost for   Year 3	16.85	Year 5 S 1668: S 1668 S 1668 Year 5 S - S - Year 5 S - S - S -	USD (Nominal) Cost Unit:    Depruiticipant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecilically non-utility capital projects that were captured asparately above). This cost does not account for what portion of costs may be covered by utility incentives, nor activate utility program admin costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT	W-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs  Project Verification Costs Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size B Calculations & Other Explanation	Year 1 \$ Year 1 \$ Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ Year 1 \$ Year 1 Year 1 Year 1	\$0.05 \$/Oth \$1.500 One t \$35,000 \$/yea \$35,000 \$/yea \$166 \$ \$166 \$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$	n, for all Dth produce time upfront  Year 2  16 16 16 Year 2  Year 2  Year 2  Year 2	Green-E or other cost for   Year 3   S   -   S   S   -   S   S   -   S   S	16.85  Vear 4  Year 4  Year 4  Year 4  Year 4	Year S \$ 16.8: \$ 165 \$ 165 \$ 165  Year S \$ - \$ - \$ - Year S \$ - Year S	USD (Nominal) Cost Unit:   Der participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecifically non-utility capital project that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor accide utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it is not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs all be used in the Participant Cost tests for the NGIA evaluation criteria. Note 1 some pilots taking a Threat stating approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILOT	year  M-RETS RTC On-going Registration Costs  M-RETS RTC Upfront Registration Costs  Project Verification Costs  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B	Year 1 \$ Year 1 \$ Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ Year 1 \$ Year 1 Year 1 Year 1	\$0.05 \$/Dth \$1,500 One t \$35,000 \$/yes	n, for all Dth produce time upfront  Year 2  16  16  Year 2  Year 2  Year 2  Year 2  Year 3	Green-E or other cost for   Year 3   S   -   S   S   -   S   S   -   S   S	16.85	Year S \$ 16.8: \$ 165 \$ 165 \$ 165  Year S \$ - \$ - \$ - Year S \$ - Year S	USD (Nominal) Cost Unit:    Depruiticipant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecilically non-utility capital projects that were captured asparately above). This cost does not account for what portion of costs may be covered by utility incentives, nor activate utility program admin costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT	W-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs  Project Verification Costs Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size B Calculations & Other Explanation	Year 1 \$ \$ Year 1 \$ \$ \$ Year 1 \$ \$ \$ Year 1 \$ \$ Year 1 \$ \$ Year 1	\$0.05 \$/Oth \$1.500 One t \$35,000 \$/yea \$35,000 \$/yea \$166 \$ \$166 \$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$	n, for all Dth produce time upfront  Year 2  16 16 16 Year 2  Year 2  Year 2  Year 2  Year 2  3.82	Green-E or other cost for   Year 3	16.85	Year S S S S S S S S S S S S S S S S S S S	USD (Nominal) Cost Unit:  ) per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it is not used to calculate any of the NGIA evaluation criteria.  This represents the apfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Ribit costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  This represents the apfront costs to participant Ribit costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note it some pilots taking a 'Direct Install' approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the everage of the 12-month percentage charge in the 'all items' consumer price index available from the United
PARTICIPANT PILOT	W-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs  Project Verification Costs. Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size A Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rat	Year 1 \$ Year 1 \$ Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ Year 1 \$ Year 1 Year 1 Year 1	\$0.05 \$/Oth \$1.500 One t \$35,000 \$/yea \$35,000 \$/yea \$166 \$ \$166 \$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$	n, for all Dth produce time upfront  Year 2  16 16 16 Year 2  Year 2  Year 2  Year 2	Green-E or other cost for   Year 3   S   -   S   S   -   S   S   -   S   S	16.85  Vear 4  Year 4  Year 4  Year 4  Year 4	Year S \$ 16.8: \$ 165 \$ 165 \$ 165  Year S \$ - \$ - \$ - Year S \$ - Year S	USD (Nominal) Cost Unit:   Der participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecifically non-stilly capital project that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor accide utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it is not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Divert Participate Risks costs will be used in the Participant Cost tests for the NGIA evaluation criteria. For come pilots taking a Theoret interval may see the utility covering all costs, with no upfront francial contribution from the participant.  For an escalation rate, we use the everage of the IZ-month percentage change in the "all items" consumer price and available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently evailable data.
PARTICIPANT PILOT COSTS	M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs Project Verification Costs Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rat	Year 1 \$ \$ Year 1 \$ \$ \$ Year 1 \$ \$ \$ Year 1 \$ \$ Year 1 \$ \$ Year 1	\$0.05 \$/Oth \$1.500 One t \$35,000 \$/yea \$35,000 \$/yea \$166 \$ \$166 \$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$	n, for all Dth produce time upfront  Year 2  16 16 16 Year 2  Year 2  Year 2  Year 2  Year 2  3.82	Green-E or other cost for   Year 3	16.85	Year S S S S S S S S S S S S S S S S S S S	USD (Nominal) Cost Unit:  ) per participant per participant per participant USD (Nominal) Cost Unit: per participant USD (Nominal) Cost Unit: per participant  [USD (Nominal) Cost Unit:	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it is not used to calculate any of the NGIA evaluation criteria.  This represents the apfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Ribit costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  This represents the apfront costs to participant Ribit costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note it some pilots taking a 'Direct Install' approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the everage of the 12-month percentage charge in the 'all items' consumer price index available from the United
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	W-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs  Project Verification Costs. Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size A Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rat	Year 1 \$ \$ Year 1 \$ \$ \$ Year 1 \$ \$ \$ Year 1 \$ \$ Year 1 \$ \$ Year 1	\$0.05 \$/Oth \$1.500 One t \$35,000 \$/yea \$35,000 \$/yea \$166 \$ \$166 \$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$	n, for all Dth produce time upfront  Year 2  16 16 16 Year 2  Year 2  Year 2  Year 2  Year 2  3.82	Green-E or other cost for   Year 3	16.85	Year S S S S S S S S S S S S S S S S S S S	USD (Nominal) Cost Unit:   Der participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIM evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant. Cost tests for the NGIM evaluation criteria. Some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the everage of the I2-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the
PARTICIPANT PILOT COSTS	M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs Project Verification Costs.  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C  Calculations & Other Explanation:  Escalation rat  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C	Year 1 \$ \$ Year 1 \$ \$ \$ Year 1 \$ \$ \$ Year 1 \$ \$ Year 1 \$ \$ Year 1	\$0.05 \$/Oth \$1.500 One t \$35,000 \$/yea \$35,000 \$/yea \$166 \$ \$166 \$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$ \$-\$	n, for all Dth produce time upfront  Year 2  16 16 16 Year 2  Year 2  Year 2  Year 2  Year 2  3.82	Green-E or other cost for   Year 3	16.85	Year S S S S S S S S S S S S S S S S S S S	USD (Nominal) Cost Unit:  Der participant  Der participant  USD (Nominal) Cost Unit:  USD (Nominal) Cost Unit:  Der participant  USD (Nominal) Cost Unit:  Der participant  Der participant per year of pilot life  Der participant per year of pilot life	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIM evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant. Cost tests for the NGIM evaluation criteria. Some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the everage of the I2-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs Project Verification Costs Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Calculations & Other Explanation:	Year 1  S  Year 1  Year 1  Year 1  Year 1  Year 1  Year 1  Year 1	\$0.05 \$/Oth \$1.500 One t \$35,000 \$/yea \$35,000 \$/yea \$166 \$ \$166 \$ \$	n, for all Dth produce time upfront  Year 2  16 16 16 16 Year 2  Year 2  Year 2  Year 2  Year 2	3 \$ 16.80 \$ d each year  Green-E or other cost for  Year 3  7 \$ 168 \$ 5  7 \$ 168 \$ 5  Year 3  \$ - \$ \$  Year 3	16.85  Year 4	Year 5 S 1668 S 1668 S 1668 S 1668 S S Year 5 S Year 5 S Year 5 S Year 5	USD (Nominal) Cost Unit:  1 per participant  2 per participant  3 per participant  3 per participant  4 per participant  5 per participant  6 per participant  7 per participant  8 per participant  9 per participant  1 USD (Nominal) Cost Unit:  1 per participant per year of pilot life	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note be some pilots taking a Direct histal approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available using  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
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PARTICIPANT PILOT COSTS	M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs Project Verification Costs Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Calculations & Other Explanation:	Year 1  \$	\$0.05 \$/Oth \$1.500 One t \$35,000 \$/yea \$35,000 \$/yea \$166 \$ \$166 \$ \$	n, for all Dth produce time upfront  Year 2  16 16 16 Year 2  3.82	3 \$ 16.80 \$ d each year  Green-E or other cost for Year 3  7 \$ 168 \$ 5 7 \$ 168 \$ 5 7 \$ 168 \$ 5 7 \$ 5 168 \$ 5	Year 4  Year 4	Year 5 S 1668 S 166 S 166 S 166 S - S - S - S - S - S - S - S - S - S -	USD (Nominal) Cost Unit:    per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIM evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant. Cost tests for the NGIM evaluation criteria. Some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the everage of the I2-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the
PARTICIPANT PILOT COSTS	M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs Project Verification Costs Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size A Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rat  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation rat	Year 1  S  Year 1  Year 1  Year 1  Year 1  Year 1  Year 1  Year 1	\$0.05 \$/Oth \$1.500 One t \$35,000 \$/yea \$35,000 \$/yea \$166 \$ \$166 \$ \$	n, for all Dth produce time upfront  Year 2  16 16 16 16 Year 2  Year 2  Year 2  Year 2  Year 2	3 \$ 16.80 \$ d each year  Green-E or other cost for  Year 3  7 \$ 168 \$ 5  7 \$ 168 \$ 5  Year 3  \$ - \$ \$  Year 3	16.85  Year 4	Year 5 S 1668 S 1668 S 1668 S 1668 S S Year 5 S Year 5 S Year 5 S Year 5	USD (Nominal) Cost Unit:    Der participant     Der participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-stilly capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RIA etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Some pilots taking a Direct install approach use the useful many see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the I2-month percentage change in the "all items" consumer price index evaluable from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
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PARTICIPANT PILOT COSTS  PARTICIPANT NON- ENERGY COSTS	M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs Project Verification Costs Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size A Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rat  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation rat	Year 1  \$	\$0.05 \$/Oth \$1.500 One t \$35,000 \$/yea \$35,000 \$/yea \$166 \$ \$166 \$ \$	n, for all Dth produce time upfront  Year 2  16 16 16 Year 2  3.82	3 \$ 16.80 \$ d each year  Green-E or other cost for Year 3  7 \$ 168 \$ 5 7 \$ 168 \$ 5 7 \$ 168 \$ 5 7 \$ 5 168 \$ 5	Year 4  Year 4	Year 5 S 1668 S 166 S 166 S 166 S - S - S - S - S - S - S - S - S - S -	USD (Nominal) Cost Unit:    Der participant     Der participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-stilly capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RIA etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Some pilots taking a Direct install approach use the useful many see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the I2-month percentage change in the "all items" consumer price index evaluable from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PLOT COSTS  PARTICIPANT NON- ENERGY COSTS	M-RETS RTC On-going Registration Costs M-RETS RTC Upfront Registration Costs M-RETS RTC Upfront Registration Costs  Project Verification Costs.  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rat  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation rat  Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size A	Year 1  \$	\$0.05 \$/Oth \$1.500 One t \$35,000 \$/yea \$35,000 \$/yea \$166 \$ \$166 \$ \$	n, for all Dth produce time upfront  Year 2  16 16 16 Year 2  3.82	3 \$ 16.80 \$ d each year  Green-E or other cost for Year 3  7 \$ 168 \$ 5 7 \$ 168 \$ 5 7 \$ 168 \$ 5 7 \$ 5 168 \$ 5	Year 4  Year 4	Year 5 S 1668 S 166 S 166 S 166 S - S - S - S - S - S - S - S - S - S -	USD (Nominal) Cost Unit:    Der participant     Der participant per year of pilot life	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-stilly capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RIA etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Some pilots taking a Direct install approach use the useful many see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the I2-month percentage change in the "all items" consumer price index evaluable from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
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PILOT LIFE	Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B Average Lifetime for Savings/Pilot Tech, Size C Calculations & Other Explanation:		10 years 10 years 10 years								
NATURAL GAS ENERGY SAVINGS: AVG. Dth/ PARTICIPANT SAVED	Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C Calculations & Other Explanation:	Changes in natural gas consumption for RN	Dth/Participant     Dth/Participant     Dth/Participant     Dth/Participant  G production are already factore	ed into Carbon Intensity thr	ough GREET calculations (avo	oiding double cou	unting them here).				
AVG. NON-GAS FUEL UNITS/ PART.	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C Avg. Additional Non-Gas Fuel Units/Part. Used, Size A Avg. Additional Non-Gas Fuel Units/Part. Used, Size B Avg. Additional Non-Gas Fuel Units/Part. Used, Size C Calculations & Other Explanation:	Changes in electricity consumption for RNC	Ol kWh/Participant OkWh/Participant OkWh/Participant Ol kWh/Participant Ol kWh/Participant UkWh/Participant OkWh/Participant KWh/Participant KWh/Participant	Avg. Additional Non-Gas Fue	el Units/Part. Used will be used in th	e Participant Cost te:		sets for the NGIA availuation criteria.			
TOTAL ANNUAL Dth SAVED	Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C Calculations & Other Explanation:	Year 1	Year 2  0.00 0,00  0.00 0,00  0.00 0,00			Year 5 0.00 0.00 0.00		Natural gas energy sovings that result from multiplying savings per participant times the total number of new participants in a given year			
GRID MIX SCENARIO	Select one of the listed grid mix scenarios taking into account that:  4/hillings shall use electric-utility-specific generation mix information for the renewable natural gas facility when it is reasonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from National Renewable Community above and above the filing and utility is using a higher from one shall assess that removes the filing gas utility will use a state-specific generation mix taken from National Renewable Community above the filing gas utility will use a state-specific generation mix taken from National Renewable Community above the filing gas utility will use a state-specific generation mix taken from National Renewable Community above the filing gas utility will use a state-specific generation mix taken from National Renewable Community above the filing gas utility will use a state-specific generation mix taken from National Renewable Community above the filing gas utility will use a state-specific generation mix taken from National Renewable Community above the filing gas utility will use a state-specific generation mix taken from National Renewable Community above the filing gas utility will use a state-specific generation mix taken from National Renewable Community above the filing gas utility will use a state-specific generation mix taken from National Renewable to the filing gas utility will use a state-specific generation mix taken from National Renewable to the filing gas utility will use a state-specific generation mix taken from National Renewable to the filing gas utility will use a state-specific generation mix taken from National Renewable to the filing gas utility will use a state-specific generation mix taken from National Renewable to the filing gas utility will use a state-specific generation mix taken from National Renewable to the filing gas utility will use a state-specific generation mix taken from National Renewable to the filing ga										
	This section does not apply to all pilot types. The GHG changes from decrease	ed natural gas and/or electricity consumpt	tion will be calculated based on	values above. However, fo	or pilots where NGIA require	es lifecycle GHG	savings (e.g. RNG, hydrogen, car	rbon capture) this section accounts for the lifecycle change in GHG emissions (per unit of participation).			
	Lifecycle GHG Intensity Savings, Size A	Year 1	Year 2	Year 3	Year 4	Year 5					
	Low Expected High	Tear 1	53.11 55		53.11		kg CO2e/participant kg CO2e/participant kg CO2e/participant	Utilities shall file a high, low, and expected greenhouse gas interactly for innovative resources included in a proposed Natural Gas Immovation Act innovation (NGIA) plan, where applicable High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Expected greenhouse gas internally values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.			
	Lifecycle GHG Intensity Savings, Size B Low	Year 1	Year 2	Year 3	Year 4	Year 5	kg CO2e/participant	the expected great mode gast transcent or price programs and story price.			
	Expected High		53.11 53	3.11 53.11	53.11	53.11	kg CO2e/participant kg CO2e/participant				
	Lifecycle GHG Intensity Savings, Size C Low Expected	Year 1	Year 2	Year 3	Year 4	Year 5	kg CO2e/participant				
LIFECYCLE GHG INTENSITY BY PROJECT SIZE	High	For RNG pilots (where the units of participation are E RNG purchased) the above values represent the life- emission reduction achieved per Dth of RNG purchas (calculated as the difference between the carbon in soore calculated from GRET) or this pilot, vs. the GR	cycle ise itensity REET	33.11	33.11	55.11	kg CO2e/participant kg CO2e/participant				
	Calculations & Other Explanation:	emission factor for geologic natural gas combustion)									
	Calculations & Other Explanation.		GHG Intensity		These values represent the carbo	n intensity for this pr	oject/archetype, as calculated by ICF us	ing GREET. Some default assumptions from GREET have been updated to better reflect typical expectations for RNG projects in Minnesota (e.g. GHG intensity of			
		Size A	Size B kg CO2e/Dth	Size C	electricity supply), use of combine						
	Low Scenario							ecific projects as they are chosen (based on assumed project designs, and later updated for actual operating conditions).			
	Expected Scenario High Scenario		13	13 13	Also note that GREET's rules for co Carbon Intensity scores.	arbon accounting (wh	nich NGIA legislation requires CenterPoin	t to follow) differ from California's Low-Carbon Fuel Standard (LCFS) in a number of areas, meaning that these scores can look quite different than California LCFS			
	Tight decitatio			+	1						
	Default Geologic Gas Emissions Factor	kg CO2e/Dth	66.14								
	RNG GHG factor, updated for grid mix factors 2025, 2030, and 2035 kg CO2e/Dth	Pilot Lifetime Average	2024-2028 period, usin 2025 grid mix	g 2029-2033 period, using 2030 grid mix 50 11.41	using 2035 grid mix						
OTHER PILOT-SPECIE	FIC PARAMETERS (formerly 'General Parameters' in CIP Calculator):										
	Peak Reduction Factor		1% The estimated average annua	l effect of the project on system	peak. It is estimated to be 1% for er	nergy efficiency pilots	s. The method for other innovative resou	rces should be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the Utility Cost and Non Participant Cost tests for the			

Calculations & Other Explanation:

	I											
		Values now link	ed directly back to planning assur	mptions tab (possible given the combin	ation of formerly separate Ex	xhibits P and N into a single fil	e)					
	Vertility on the state of the s		Year 1	Year 2	Year 3	Year 4 \$ 0.04	Year 5	USD (Nominal) Cost Unit:	The CIP methodology is used for energy efficiency. However, the value for other innovative resources should be considered in the context of			
VARIABLE O&M	Variable O&M Cost, Applies to all project sizes	Ф		•		•	•	per bui	specific utility proposals. For example, resources like power-to-hydrogen and RNG may not decrease O&M costs as they also need to be transported to customers on the distribution system. Variable O&M will be used in the Utility Cost and Non Participant Cost tests for the NGIA			
	Calculations & Other Explanation: Escalat	tion rate n/a	Year 1	Year 2 -5.250	Year 3 % -5.250%	Year 4 -5.250	Year 5 6 -5.250	(for each pilot analysis year)	evaluation criteria. Note, to calculate this metric, you can make one cost estimate for year I and then use the escalation rate to estimate each Annual Escalation Rate calculated using the average percent change in the price of natural gas between 2023 through 2027 to all users in the Wes			
				*		·						
				USD (Nominal) Cost Unit	•							
NON-GAS FUEL	Non-Gas (i.e., Electric) Fuel Cost	\$		44.14 per MWh	The CIP methodology is use	ed for all resources other than s	rategic electrification.	The method for strategic electrification should be co	onsidered in the context of specific utility pilot proposals.  rember 31, 2022 using data from Midwest Independent System Operator (MISO)			
COST	Calculations & Other Explanation:				equal to the average or daily	y real time market location	an marginal prices (civi	y at the minesota has non summy , 2022 to been	terrater of 2022 using data from mameric independent operator (mice)			
	·											
	Non-Gas Fuel Loss Factor			8.22%	The Old control of the Control	16		Th				
				0.22 %	reported by Minnesota Pow	ed for all resources other than s ver, Xcel Energy, and Otter Tail F	ower's reported 2021	transmission and distribution loss factors and weight	onsidered in the context of specific utility pilot proposals. In the most recent CIP, Staff used the weighted average of the most recent loss factors ing by the utilities' 2017-2019 average retail sales			
	Calculations & Other Explanation:											
NON-GAS FUEL												
LOSS FACTOR												
OTHER QUANTITATI	VE CRITERIA:											
				USD Cost Unit:	<b>7</b>	710	ata dan da ata ata ata ata ata ata ata ata ata	de la companya de la	a Public Utilities Commission (Commission). The factors are reported in 2021 dollars in Table 2 below, which were calculated by inflating the Commission's			
	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B	\$		0.37 per Dth  0.37 per Dth	approved dollar per ton env	vironmental cost values using e	calation rate to adjust	by observed inflation between 2014 and 2021. Stakel	sholders expressed a preference for allowing utilities to select different externality values for pilots targeting specific geographies or populations. For			
OTHER NON-GHG POLLUTANTS	Other Non-GHG Pollutants, Size C	\$		0.37 per Dth	NGIA plans if they can provi applicable for the pilot or m	ide justification for the change.	instead of requiring the	e use of median metropolitan fringe values for all non-	value. Similarly, a project targeting a low-income population might use a high value rather than the median. Utilities can make deviations such as these in their all non-GHG pollutants, as shown in Table I of the Commission's January 3, 2018 Order in Docket No. ED999/CI-14-843, utilities may use the value most			
	Calculations & Other Explanation:											
			Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life			
	Net Direct Job Creation, Size A Net Direct Job Creation, Size B			0	3 3	1 3	3	3	3 5 # of jobs Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.			
	Net Direct Job Creation, Size C			0	17	7 1	6	16	66 115 # of jobs			
			Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life			
NET JOB CREATION	Net Indirect Job Creation, Size A		rear 1	O Tear 2	0 0	) Tear 4	Tear 5	O local during 5 program years	2 # of jobs Utilities should consider both jobs created by proposed pilots and jobs that			
	Net Indirect Job Creation, Size B Net Indirect Job Creation, Size C			0	2 9 9	2	9	9	7 11 # of jobs may be eliminated by proposed pilots. 36 62 # of jobs			
		ų		•	*	*		*				
	Net Induced Job Creation, Size A		Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life  2 3 # of jobs			
	Net Induced Job Creation, Size A			0	2 2	2	2	2	8 13 # of jobs			
	Net Induced Job Creation, Size A			0	11 10	1	0	10	41 71 # of jobs			
			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:				
	Public Co-Benefits, Size A Public Co-Benefits. Size B	\$		- \$ -	\$ -	\$ -	\$	per year per year	Quantifiable in some cases. If this metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative Considerations section below.			
	Public Co-Benefits, Size B Public Co-Benefits, Size C	\$		- \$ -	\$ -	\$ -	\$	per year per year				
	Calculations & Other Explanation:											
PUBLIC CO- BENEFITS												
_ DENETITO												
	Water Pollution, Size A	\$	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per year	The legislation left the door open to quantify any costs and benefits on water pollution. This might be quantifiable for some of the projects.			
	Water Pollution, Size B Water Pollution, Size C	\$		- \$ - - \$	\$ -	\$ -	\$	per year per year	Methodology is TBD. If this metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative Considerations section below			
		*		Ψ -		-		F = . 7001				

WATER POLLUTION	Calculations & Other Explanation: door open to quantify
ADDITIONAL QUALITA	ATIVE CONSIDERATIONS:
NGIA Utility Perspective Notes:	It is accorded that most of the utility corresponds counts and benefits will be
Definition:	It is expected that most of the utility perspective costs and benefits will be quantificible with and should be heavily informed by the structural values and CIP quantification methods.
NGIA Participants' Perspective Notes: Definition:	It is expected that many of the elements of the participant perspective, with respect to the direct effect of pilots, will be quantifiable and will rely on the structural values. Add here any information related to some direct effects of pilots on participants that may not be easily quantifiable. For example, increased comfort in a home and health benefits from pilots that improve indoor air quality are two examples of benefits that may be difficult to quantify.
NGIA Nonparticipating Customers' Perspective Notes:	As with the utility perspective, the direct effects of pilot programs on non-
Definition:	participating customers should be quantified in most cases and can be heavily informed by structural values.  Provides widespreed benefits to all sales customers
	NGA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utility and its customers. Measures like strategic electrification specifically require gas utilities and the Commission to avoid negative effects on the electric system Further, the NGA empowers the Commission to consider a wide variety of costs and benefits that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel markets.  Company will give preference to fuel made in MN that will reduce import from outside of MN
	An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.
Other Pollution Notes: Definition:	include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.
Waste Reduction and Reuse Notes:	West advision was and according to consider the NCB best day
Definition:	Waste reduction, reuse, and anserobic digestion are goals of the NGIA. Includes reduction of water use. wastewater projects make a useful product from waste
	NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable
Definition:	resources. Reduces fossil gas throughput; increases use of renewable energy

Not let Occasion	
Net Job Creation Notes:	
ivotos.	
	An innovation plan must include, as applicable, "projected local job impacts
	resulting from implementation of the plan." Utilities should consider both jobs
	created by proposed pilots and jobs that may be eliminated by proposed pilots.
Semilion	очения в у ревроявие реактивно росс ответного в у ревроявие реактивного в у реактивн
Economic	
Development.	
Notes:	
Notes: Definition:	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional
Public Co-Benefits	
Notes: Definition:	
	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.
	Filot would support wastewater treatement, which is often a public and publicly funded service
Market Development	
Development.	
Notes:	
Definition:	
	The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are realized
D'	
Direct Innovation Support Notes:	
	This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA 40 are unlikely to produce significant benefits on their own but are
	intended to lead of future opportunities.
	Opportunity of Company to learn about purchasing RNG
	Section 1997 and 199
	<u> </u>
Resource	
Scalability and Role	
in a Decarbonized	
System Notes:	
Definition:	7.100
	While NGIA pilots may have small impacts in the mear-term, takeholders felit it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider felit was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider felit was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider felit was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider felit was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider felit was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider the commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider the commission to cons
	or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.
	Realistic pathways to decarbonization include RNG

기 기CF		Click here to go back to the list of all pilots				NGIA Pilot Profiles Workbook		
<b>∕ICF</b>	CNP04 - RNG Archetype - Dairy Manure							
	Pilot Project Code:	CNPO4						
	Pilot Project Name:	RNG Archetype - Dairy Manure						
	Customer Class/ Sector:	C&I & Res						
	Low-Income Community Benefit?	N						
	Target Area:	Territory-wide						
	Primary Innovative Resource Category:	Renewable Natural Gas (RNG)	Select primary Innovation Category. O	thers can be listed here:				
	Pilot Description:							
	For Pilots 3-6, the "RNG Archetypes", CenterPoint Energy would purchase RNG -							
	upgrading equipment (required to produce pipeline-quality RNG) for a limited n	umber of RNG projects, to reduce developers' req	ired capital. We have developed an est	timate of expected carbon intensity for	each type of fee	edstock to inform our analysis of potential	GHG reductions from a portfolio of RNG purchases.	
DESCRIPTION								
	Overview of Program/ Implementation Approach:							
	CenterPoint Energy would likely issue a request for proposals (RFP) from RNG p	roject developers. The PEP process would help Car	terPoint Energy to maximize cost-offer	ctiveness by building a portfolio of PNG	nurchaege from	a variety of projects and under customizer	A contract terms	
	Centen out thereby would likely issue a request for proposals (Kirr) from Kird p	roject developers. The Kiri process would help cer	terr out chergy to maximize cost-errec	ctiveness by building a portiono or kiva	purchases from	a variety or projects and under customized	Contract terms.	
	Other Comments / Information:							
	For the purposes of this analysis, assumes offtake from developer or other entit	ty, not capital investment from CNP.						
		,,						
KEY PILOT-SPECIFIC	INPUTS:							
	Pilot Year	Year 1	Year 2 Ye	ear 3 Year 4	Year 5			
	Calendar Year	7ear 1		2026 2027	7ear 5	п		
	Participating Units, Size A	2024	10,000	2026 2027	2028		ear. Incremental units added, annual (not cumulative).	
	Participating Units, Size B		20,000			Dekatnerms or gas purchased as ortiake in single y	ear. Incremental units added, annual (not cumulative).	
	Participating Units, Size C		100,000			Note, this represents the annual RNG (Dth/year) the	at will be purchased through a multi-year agreement (project life define	d below) starting in this year.
	Tartiopating onto, one o	Units above are to annual dekatherms of RNG s	,	contract starts)		<del>-</del>		
	Calculations & Other Explanation:	Sizes are placeholder assumptions to show a ran	ze of RNG purchase volumes (NGIA rule	es require at least half of the budget to b	e for low-carbo	in fuels like RNG and Hydrogen)		
NUMBER OF	· · · · · · · · · · · · · · · · · · ·	,				, , ,		
		Year 1		ear 3 Year 4	Year 5			
PARTICIPANTS	Cumulative RNG Supply (Dth/year), Size A		10,000	10,000 10,000	10,000			
	Cumulative RNG Supply (Dth/year), Size E		20,000	20,000 20,000	20,000			
	Cumulative RNG Supply (Dth/year), Size C	-	100,000	100,000 100,000	100,000			
	Assumed Number of GHG Verifications Required, Size A	:		1 1				
	Assumed Number of GHG Verifications Required, Size A Assumed Number of GHG Verifications Required, Size B			2 2	1	Unacetain have many DNC avainate would	be needed, conservatively assuming multiple verifications	
	Assumed Number of GHG Verifications Required, Size C			3 3	2	Uncertain now many RNG projects would	be needed, conservatively assuming multiple verifications be needed, conservatively assuming multiple verifications	
	Assumed Number of Grid Verifications Required, 5126 C		3	3	3	oncertain now many kind projects would	be needed, conservatively assuming multiple verifications	•
		Year 1	Year 2 Ye	ear 3 Year 4	Year 5	USD (Nominal) Cost Unit:	<b>-</b>	
	Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B	\$ 12,250 \$ 12,250	\$ 493,742 \$ \$ 978,613 \$	502,477 \$ 505,283 \$ 991,958 \$ 997,180 \$	1002160	total cost per year total cost per year	These incremental utility costs are what will count against the NGIA	budget cap for this measure and will be used in the Utility Cost, and Non m of utility admin costs to run pilot, any incentive funding to support pro
	Annual Total Utility Incremental Cost, Size C	\$ 12,250	\$ 4630.497 \$	4662807 \$ 4687356 \$	4710649	total cost per year	deployment, and/or the utility's annual revenue requirement for cap	ital investments made on select pilots.
	Allindar Fotal ottility incremental cost, 5126 C	Ψ 12,230	\$ 4,000,407	4,002,007	4,710,043	total cost per year	<b>-</b>	
		Year 1	Year 2 Ye	ear 3 Year 4	Year 5	USD (Nominal) Cost Unit:		
	Fixed O&M Cost, Size A	\$ 12,250	\$ 493,742 \$	502,477 \$ 505,283 \$	507,974	total cost per year	Fixed O&M Cost is the result of adding up Total Project Delivery, Ac	vertising and Promotions, Utility Administration, Trade Ally Incentives, an
	Fixed O&M Cost, Size B	\$ 12,250	\$ 978,613 \$	991,958 \$ 997,180 \$		total cost per year	Workforce Development of Market Transformation Cost	
	Fixed O&M Cost, Size C	\$ 12,250		4,662,807 \$ 4,687,356 \$		total cost per year		
			¥				_	
		Year 1		ear 3 Year 4		USD (Nominal) Cost Unit:	_	
	Total Project Delivery, Size A	\$ 12,250	\$ 493,427 \$	502,477 \$ 505,283 \$		per year	Total internal and external project delivery	
	Total Project Delivery, Size B	\$ 12,250	\$ 978,420 \$	991,958 \$ 997,180 \$	1,002,160	per year		
	Total Project Delivery, Size C	\$ 12,250	\$ 4,630,219 \$	4,662,807 \$ 4,687,356 \$	4,710,649	per year		
		V4	V2	ear 3 Year 4	V F	1100 (11		
	Internal Project Delivery, Size A	Year 1 12,250		ear 3 Year 4 12.996 \$ 13.386 \$	Year 5	USD (Nominal) Cost Unit: per year	CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" of	
	Internal Project Delivery, Size B	\$ 12,250		12,996 \$ 13,386 \$	13,767	per year	CNF stall. These costs are sub-set of the officery Fixed Cosm cost to	ategory above.
	Internal Project Delivery, Size C	\$ 12,250	\$ 4,406 \$	12,996 \$ 13,386 \$	13.787	per year	-	
	internal Froject Belivery, GLEC C	1955	7.55		,	p. /		
		Year 1	Year 2 Ye	ear3 Year4	Year 5	USD (Nominal) Cost Unit:		
	External Project Delivery, Size A	\$ -	\$ 488,431 \$	489,481 \$ 491,897 \$	494,186	per year	External vendor costs would include direct install costs where CNP	eimburses the vendor. These costs are sub-set of the Utility "Fixed O&M
	External Project Delivery, Size B	\$	\$ 975,363 \$	978,962 \$ 983,794 \$	988,372	per year	Cost" category above.	
	External Project Delivery, Size C	\$ -	\$ 4,625,813 \$	4,649,811 \$ 4,673,970 \$	4,696,862	per year		
		Year 1		ear3 Year4		USD (Nominal) Cost Unit:	<b>-</b>	
	Advertising and Promotions, Size A	* -	\$ 315 \$	- \$ - \$ - \$ - \$	-	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category at	nove.
	Advertising and Promotions, Size B	φ - ¢	\$ 193 \$ \$ 278 \$			per year	+	
	Advertising and Promotions, Size C	Ψ -	\$ 278 \$	-  \$ -  \$		per year		
		Year 1	Year 2 Ye	ear 3 Year 4	Year 5	USD (Nominal) Cost Unit:		
	Allocation of General Portfolio Costs, Size A	1,581 1	10012 11	10017	1041 3	per year	Share of portfolio level costs, including plan development costs, reg	ulatory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size A			+		per year		
	Allocation of General Portfolio Costs, Size C					per year	1	
		1		+ +		1.	→	
		Year 1	Year 2 Ye	ear3 Year4	Year 5	USD (Nominal) Cost Unit:		
	Trade Ally Incentives, Size A	\$ -	\$ - \$	- \$ - \$	-	per year	If applicable, include here the annual amount of trade ally incentives	(e.g. midstream program)
	Trade Ally Incentives, Size B	\$ -	\$ - \$	- \$ - \$	-	per year		
	Trade Ally Incentives, Size C	\$ -	\$ - \$	- \$ - \$	-	per year		
				_				
		Year 1	Year 2 Ye	ear 3 Year 4	Year 5	USD (Nominal) Cost Unit:		

	Workforce Development or Market Transformation Cost, Size A	\$	- \$	-  \$ -  \$	-	\$ -	per year	These costs are sub-set of the Utility "Fixed OSM Cost" category above.
	Workforce Development or Market Transformation Cost, Size B	\$	- \$	- \$ - \$	-	\$ -	per year	
	Workforce Development or Market Transformation Cost, Size C	\$	- \$	- \$ - \$	-	\$ -	per year	
		Year 1	V 2	Year 3	V 4	V F	1100 (11	
UTILITY PILOT	Other Fixed O&M Cost, Size A	¢	Year 2	_ e _ e	Year 4	Year 5	USD (Nominal) Cost Unit: per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
COSTS	Other Fixed O&M Cost, Size B	\$	- \$	- s - s	-	\$ -	per year	The count of the state of the s
	Other Fixed O&M Cost, Size C	\$	- \$	- \$ - \$	-	\$ -	per year	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the
	Total utility capital investment, Size A Total utility capital investment. Size B	\$	- \$	- 5 - 5	-	\$ -	per year per year	Inis tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital
	Total utility capital investment, Size C	\$	- \$	- \$ - \$	-	\$ -	per year	investments (shown below).
	,,		*					=
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	_
	Est. Annual Revenue Requirement for Capital Projects, Size A	\$	- \$	- \$ - \$	-	\$ -	per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as well as the utility "Fixed O&M Costs" captured above. This revenue requirement is calculated from the magnitude & timing of capital investment
	Est. Annual Revenue Requirement for Capital Projects, Size B Est. Annual Revenue Requirement for Capital Projects, Size C	*	- 5	- 3 - 3	-	\$ -	per year per year	captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
	est. Armuai Revenue Requirement for Capital Projects, size C	Ψ	- 4		_	Ψ -	per year	_
		Total	USD (Nominal) Cost Un	it:				
	Est. Total Revenue Requirement for Capital Projects, Size A Est. Total Revenue Requirement for Capital Projects, Size B	\$	- per year					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to
	Est. Total Revenue Requirement for Capital Projects, Size B Est. Total Revenue Requirement for Capital Projects, Size C	\$	- per year	_				calculate any of the NGIA evaluation criteria.
	est. Total Revenue Requirement for Capital Projects, Size C	Ψ	- pei yeai					
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives, Size A	\$	- \$	- \$ - \$	-	\$ -	per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc.). Do not include
	Incentives, Size B	\$	- \$	- \$ - \$	-	\$ -	per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership, incentives will
	Incentives, Size C	\$	- \$	- \$ - \$	-	\$ -	per year	ha wead in the Particinant Cost tests for the NGIA evaluation criteria
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives per Participant, Size A	#DIV/O!	s lear z	- #DIV/O!	#DIV/O!	#DIV/0!	per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size B	#DIV/O!	\$	- #DIV/O!	#DIV/O!	#DIV/O!	per participant per year	
	Incentives per Participant, Size C	#DIV/O!	\$	- #DIV/0!	#DIV/0!	#DIV/O!	per participant per year	
	Calculations & Other Explanation:							
	RNG Contract Purchase Cos	Year 1	Year 2 50.00 \$ 50.0	Year 3	Year 4 50.00	Year 5	per Dth (1 Dth = 1 MMBtu)	
	RNG Contract Furchase Cos	ьс. ф	50.00 \$ 50.0	0 \$ 50.00 \$	30.00	\$ 50.00	per bur (1bur = 1 MIMBLU)	Note - in original Exhibit N these were based on a fixed value for Year 1, but in this combined file they have been
								linked to the 'Planning Assumptions' from Exhibit P so that commodity price updates are automatically reflected here.
								This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG
	Geologic Gas Cos	st: \$	5.13 \$ 4.8	6 \$ 4.60 \$	4.36	\$ 4.13	per Dth	Year 1 Commodity costs in the original filing.
	Incremental Fuel Cos	st: \$	44.87 \$ 45.	45.40 \$	45.64	\$ 45.87	per Dth	Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that
	Incremental Fuel Cost - Average over Contract Life (based on contract sta	rt						
	year	r): \$	45.63 \$ 45.	73 \$ 45.80 \$	45.85	\$ 45.87	per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	,				45.85	\$ 45.87	per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	M-RETS RTC On-going Registration Cost	s:	\$0.05 \$/Dth, for all Dth produc		45.85	\$ 45.87	per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	,	s:			45.85	\$ 45.87	per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	M-RETS RTC On-going Registration Cost	s:	\$0.05 \$/Dth, for all Dth produc		45.85	\$ 45.87	per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	M-RETS RTC On-going Registration Cost	s:	\$0.05 \$/Dth, for all Dth produc		45.85	\$ 45.87	per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost	rs: rs:	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront	red each year			per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	M-RETS RTC On-going Registration Cost	rs: rs:	\$0.05 \$/Dth, for all Dth produc				per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost	rs: rs:	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront	red each year		tion	per Dth  USD (Nominal) Cost Unit:	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost	(55) (55)	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year	ed each year Green-E or other cost for	project GHG verifica Year 4	tion Year 5		This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital
	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B	(55) (55)	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year	Green-E or other cost for  Year 3  7 \$ 458 \$	project GHG verifica  Year 4  458 458	Year 5 \$ 459	USD (Nominal) Cost Unit: per participant per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This code not account for what portion of costs may be covered by utility incentives, nor
	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost Project Verification Cost  Total Pilot Upfront Costs, Size A	(55) (55)	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44	Green-E or other cost for  Year 3  7 \$ 458 \$	project GHG verifica  Year 4  458	Year 5 \$ 459	USD (Nominal) Cost Unit:  per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital
	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B	\$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44	Green-E or other cost for Year 3  77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$	year 4 458 458 458	Year 5 \$ 459 \$ 459 \$ 459	USD (Nominal) Cost Unit: per participant per participant per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This code not account for what portion of costs may be covered by utility incentives, nor
	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost  Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C	(55) (55)	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44	Green-E or other cost for Year 3 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 77 \$ 77 \$ 77 \$ 77 \$ 77 \$ 77 \$	Year 4 458 458 Year 4	Year 5 \$ 459 \$ 459 Year 5	USD (Nominal) Cost Unit: per participant per participant per participant per participant USD (Nominal) Cost Unit:	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost  Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A	\$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44	Green-E or other cost for Year 3  77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$	Year 4 458 458 Year 4	Year 5 \$ 459 \$ 459 \$ 459	USD (Nominal) Cost Unit:  per participant per participant per participant USD (Nominal) Cost Unit: per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This code not account for what portion of costs may be covered by utility incentives, nor
TOTAL AND DIRECT	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost  Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C	\$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44	Green-E or other cost for Year 3 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 77 \$ 77 \$ 77 \$ 77 \$ 77 \$ 77 \$	Year 4 458 458 Year 4	Year 5 \$ 459 \$ 459 Year 5	USD (Nominal) Cost Unit: per participant per participant per participant per participant USD (Nominal) Cost Unit:	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's
PARTICIPANT PILOT	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost Project Verification Cost Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B	\$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44	Green-E or other cost for Year 3 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 77 \$ 77 \$ 77 \$ 77 \$ 77 \$ 77 \$	Year 4 458 458 Year 4	Year 5 \$ 459 \$ 459 Year 5	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's
	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size A Third Party Funding, Size B	Year 1  \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44 456 \$ 45 Year 2 - \$ - \$ - \$	Green-E or other cost for  Year 3  77 \$ 458 \$  78 \$ 458 \$  79 \$ 458 \$  79 \$ 458 \$  Year 3  - \$ - \$ - \$  - \$ - \$	Year 4  458 458 458  Year 4	Year 5 \$ 459 \$ 459 \$ 459  Year 5 \$ - \$ -	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant per participant per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's
PARTICIPANT PILOT	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost Project Verification Cost Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:	\$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44	Green-E or other cost for Year 3 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 77 \$ 77 \$ 77 \$ 77 \$ 77 \$ 77 \$	Year 4 458 458 Year 4	Year 5 \$ 459 \$ 459 Year 5	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant per participant per participant USD (Nominal) Cost Unit:	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were capitared separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
PARTICIPANT PILOT	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size A	Year 1  \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44 456 \$ 45 Year 2 - \$ - \$ - \$	Green-E or other cost for  Year 3  77 \$ 458 \$  78 \$ 458 \$  79 \$ 458 \$  79 \$ 458 \$  Year 3  - \$ - \$ - \$  - \$ - \$	Year 4  458 458 458  Year 4	Year 5 \$ 459 \$ 459 \$ 459  Year 5 \$ - \$ -	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: USD (Nominal) Cost Unit:	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted
PARTICIPANT PILOT	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost Project Verification Cost Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A	Year 1  \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44 456 \$ 45 Year 2 - \$ - \$ - \$	Green-E or other cost for  Year 3  77 \$ 458 \$  78 \$ 458 \$  79 \$ 458 \$  79 \$ 458 \$  Year 3  - \$ - \$ - \$  - \$ - \$	Year 4  458 458 458  Year 4	Year 5 \$ 459 \$ 459 \$ 459  Year 5 \$ - \$ -	USD (Nominal) Cost Unit: per participant per participant per participant Der participant USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant USD (Nominal) Cost Unit:	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were capitared separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
PARTICIPANT PILOT	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size A	Year 1  \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44 456 \$ 45 Year 2 - \$ - \$ - \$	Green-E or other cost for  Year 3  77 \$ 458 \$  78 \$ 458 \$  79 \$ 458 \$  79 \$ 458 \$  Year 3  - \$ - \$ - \$  - \$ - \$	Year 4  458 458 458  Year 4	Year 5 \$ 459 \$ 459 \$ 459  Year 5 \$ - \$ -	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: USD (Nominal) Cost Unit:	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were capitated separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note
PARTICIPANT PILOT	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost  Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Gosts, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size B Calculations & Other Explanation.	Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ Year 1 \$ Year 1	\$0.05 \$/Oth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44 456 \$ 45 Year 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Green-E or other cost for  Year 3  Strict St	Year 4  Year 4  Year 4  Year 4  Year 4  Year 4	Year 5 \$ 459 \$ 459 Year 5 \$ - \$ - Year 5 \$ - Year 5	USD (Nominal) Cost Unit:  per participant  per participant  per participant  USD (Nominal) Cost Unit:  per participant  per participant  per participant  per participant  USD (Nominal) Cost Unit:  per participant  per participant  per participant  per participant  per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (a.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It is some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILOT	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost Project Verification Cost Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C	Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ Year 1 \$ Year 1	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44 456 \$ 44 Year 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Green-E or other cost for  Year 3  Strict St	Year 4  Year 4  Year 4  Year 4  Year 4  Year 4	Year 5 \$ 459 \$ 459 Year 5 \$ - \$ - Year 5 \$ - Year 5	USD (Nominal) Cost Unit: per participant per participant per participant Der participant USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant USD (Nominal) Cost Unit:	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include stillty program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participante in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index exallable from the United
PARTICIPANT PILOT	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost  Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Gosts, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size B Calculations & Other Explanation.	Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ Year 1 \$ Year 1	\$0.05 \$/Oth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44 456 \$ 45 Year 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Green-E or other cost for  Year 3  Strict St	Year 4  Year 4  Year 4  Year 4  Year 4  Year 4	Year 5 \$ 459 \$ 459 Year 5 \$ - \$ - Year 5 \$ - Year 5	USD (Nominal) Cost Unit:  per participant  per participant  per participant  USD (Nominal) Cost Unit:  per participant  per participant  per participant  per participant  USD (Nominal) Cost Unit:  per participant  per participant  per participant  per participant  per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (a.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It is some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILOT	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost  Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Gosts, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size B Calculations & Other Explanation.	Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth, produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44 456 \$ 44 456 \$ 44 Year 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Green-E or other cost for Year 3  77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 78 \$ 458 \$ 77 \$ 78 \$ 458 \$ 78 \$ 78 \$ 78 \$ 78 \$ 78 \$ 78 \$ 78 \$	Year 4  Year 4  Year 4  Year 4  Year 4  Year 4	Year 5 \$ 459 \$ 459 Year 5 \$ - \$ - Year 5 \$ - \$ 3.825	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include stillty program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participante in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index exallable from the United
PARTICIPANT PILOT	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost  Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size A Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rat	Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ \$ Year 1 \$ Year 1 \$ Year 1	\$0.05 \$/Oth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44 456 \$ 45 Year 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Green-E or other cost for  Year 3  Strict St	Year 4  Year 4  Year 4  Year 4  Year 4  Year 4	Year 5 \$ 459 \$ 459 Year 5 \$ - \$ - Year 5 \$ - Year 5	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant Des (Idor each pilot analysis year)	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participants in this pilot. This is a calculated value where utility incentives are subtracted from the total upfront project costs. Direct Participant Plac costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note is some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT COSTS	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost  Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rat	Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth, produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44 456 \$ 44 456 \$ 44 Year 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Green-E or other cost for Year 3  77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 78 \$ 458 \$ 77 \$ 78 \$ 458 \$ 78 \$ 78 \$ 78 \$ 78 \$ 78 \$ 78 \$ 78 \$	Year 4  Year 4  Year 4  Year 4  Year 4  Year 4	Year 5 \$ 459 \$ 459 Year 5 \$ - \$ - Year 5 \$ - \$ 3.825	USD (Nominal) Cost Unit: per participant USD (Nominal) Cost Unit: per participant USD (Nominal) Cost Unit: per participant per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include stillty program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participante in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index exallable from the United
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost  Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size A Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rat	Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth, produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44 456 \$ 44 456 \$ 44 Year 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Green-E or other cost for Year 3  77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 458 \$ 77 \$ 78 \$ 458 \$ 77 \$ 78 \$ 458 \$ 78 \$ 78 \$ 78 \$ 78 \$ 78 \$ 78 \$ 78 \$	Year 4  Year 4  Year 4  Year 4  Year 4  Year 4	Year 5 \$ 459 \$ 459 Year 5 \$ - \$ - Year 5 \$ - \$ 3.825	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant Des (Idor each pilot analysis year)	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. RA, etc.) account for those values here. This funding is noted here for reference, it is not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note taken ground project costs. Direct Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note taken ground project costs. Direct Participant Plot costs will be used in the Participant Costs will be used in the Participant Plot Participant Costs and Plate P
PARTICIPANT PILOT COSTS	M-RETS RTC On-going Registration Cost M-RETS RTC Upfront Registration Cost M-RETS RTC Upfront Registration Cost  Project Verification Cost  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size A Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rat  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C	Year 1  \$  Year 1	\$0.05 \$/Dth, for all Dth produc \$1,500 One time upfront \$35,000 \$/year Year 2 456 \$ 44 456 \$ 44 456 \$ 44 Fear 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Green-E or other cost for  Year 3  77 \$ 458 \$  77 \$ 458 \$  78 458 \$  Year 3  - \$ - \$ - \$  - \$ - \$  - \$ - \$  - \$ - \$  - \$ - \$  Year 3  - \$ - \$  - \$	Year 4	Year 5 \$ 459 \$ 459 \$ 459 Year 5 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. RA, etc.) account for those values here. This funding is noted here for reference, it is not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note taken ground project costs. Direct Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note taken ground project costs. Direct Participant Plot costs will be used in the Participant Costs will be used in the Participant Plot Participant Costs and Plate P
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PILOT LIFE	Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B Average Lifetime for Savings/Pilot Tech, Size C Calculations & Other Explanation:	10	vears vears vears					
NATURAL GAS ENERGY SAVINGS: AVG. Dth/ PARTICIPANT SAVED	Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C Calculations & Other Explanation:	0	Oth/Participant Oth/Participant Oth/Participant uction are already factored	into Carbon Intensity t	nrough GREET calculations (	(avoiding double	counting them here).	
AVG. NON-GAS FUEL UNITS/ PART.	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C  Avg. Additional Non-Gas Fuel Units/Part.Used, Size A Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C  Calculations & Other Explanation:	0 0	kWh/Participant kWh/Participant	Avg. Additional Non-Gas Fu	el Units/Part. Used will be used in	the Participant Cost	eved will be used in the Participant Cost to tests for the NGIA evaluation criteria.	ests for the NGIA evaluation criteria.
TOTAL ANNUAL Dth SAVED	Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C Calculations & Other Explanation	Year 1 0.00 0.00 0.00 0.00	Year 2 0.00 0.00 0.00	Year 3 0.00 0.00 0.00	Year 4 0.00 0.00 0.00	Year 5 0.00 0.00 0.00	Dth	Natural gas energy savings that result from multiplying savings per participant times the total number of new participants in a given year
GRID MIX SCENARIO	Grid Mix Scenario  Calculations & Other Explanation:	NREL			mix scenarios taking into account ility-specific generation mix infor (MIDEL) Standard Spanning II to		able natural gas facility when it is reasona	bly available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from National analysis fees electrically their in unlinkels by default fees their detailed stilling and the content of the content
	•							
	·	sed natural gas and/or electricity consumption wil	be calculated based on v	ralues above. However	for pilots where NGIA requ	uires lifecycle G	HG savings (e.g. RNG, hydrogen, c	carbon capture) this section accounts for the lifecycle change in GHG emissions (per unit of participation).
	·	ved natural gas and/or electricity consumption will Year 1 98.95 Year 1	be calculated based on v Year 2 98.95 Year 2	Year 3	for pilots where NGIA requ Year 4 98.95	Year 5 98.95 Year 5	kg CO2e/participant kg CO2e/participant kg CO2e/participant	Larbon capture) this section accounts for the lifecycle change in GHG emissions (per unit of participation).  Utilities shall file a high low and espected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Acci.  Innovation (NGA) plan where applicable right and low accentres shall incorporate at least low and high assumptions for electricity use and other files used in the resource's lifecycle. Expected generhouse gas intensity vales will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.
	This section does not apply to all pilot types. The GHG changes from decreas Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C	Year 1 98.95	Year 2 98.95	Year 3 98.95	Year 4 98.95	98.95 Year 5 98.95	kg CO2e/participant	Utilities shall file a high low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NCIA) plan, where applicable right and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's literycise. Expected generhouse gas intensity values will be used in outer-beneric fliculations and when
LIFECYCLE CHG INTENSITY BY PROJECT SIZE	This section does not apply to all pilot types. The GHG changes from decrease Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High	Year 1 98.95 Year 1 98.95	Year 2 98.95 Year 2 98.95	Year 3 98.95 Year 3	Year 4  98.95  Year 4	Year 5  98.95  Year 5  98.95  Year 5	kg CO2e/participant kg CO2e/participant kg CO2e/participant kg CO2e/participant kg CO2e/participant	Utilities shall file a high low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NCIA) plan, where applicable right and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's literycise. Expected generhouse gas intensity values will be used in outer-beneric fliculations and when
	This section does not apply to all pilot types. The GHG changes from decreas Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C Low Expected	Year 1  98.95  Year 1  98.95  Year 1  98.95  Year 1  98.95  For RNO pilots (where the units of participation are Dth of RNO purchased) the above values represent the Recycle emission reduction achieved per Divi of RNO purchased (calculated as the difference between the carbon intensity emission factor for geologic returnal gas combustion).	Year 2 98.95 Year 2 98.95 Year 2 98.95	Year 3 98.95 Year 3	Year 4  98.95  Year 4  98.95  Year 4	Year 5 98.95 Year 5 98.95 Year 5	kg CO2e/participant	Utilities shall file a high low, and espected greenhouse gas intensity for irrovestive resources included in a proposed Natural Gas irrovestion (NGA) plan, where applicable, legit and low screening shall incorporate at least low and fight assumptions for electricity use and contained to the second of the contained of the contai
	This section does not apply to all pilot types. The GHG changes from decrease Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C Low Expected High	Year 1  98.95  Year 1  98.95  Year 1  98.95  Year 1  98.95  For RNG pilots (where the units of participation are Dm of RNG purchased) bit above values represent the Mercycle (calculated as the difference between the carbon intensity score calculated from GREET for this pilot, so the GREET emission factor for geologic natural gas combustion.  GHG Int.  Size A  kg COZ	98.95  Year 2  98.95  Year 2  98.95  Year 2  98.95  Size B	Year 3 98.95 Year 3 98.95 Year 3 98.95	Year 4  98.95  Year 4  98.95  Year 4  98.95  These values represent the carbon intensities will intensity of electricity supply), ut	Year 5 98.95 Year 5 98.95 Year 5 98.95 on intensity for this are de of combined heat are of combined heat wary by project, and	kig CO2e/participant kig CO2e/	Utilities shall file a high low, and espected greenhouse gas intensity for irrovative resources included in a proposed Natural Cas Irrovation Action (NCAL) plan where applicable, sight and for scoratios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Espected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.  In green the expected greenhouse gas reduction of pilot programs and NGIA plans.
	This section does not apply to all pilot types. The GHG changes from decrease Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C Low Expected High Calculations & Other Explanation: Low Scenario Expected Scenario High Scenario	Year 1  98.95  Year 1  Yea	Year 2  98.95  Year 2  98.95  Year 2  98.95	Year 3 98.95 Year 3 98.95 Year 3 98.95	Year 4  98.95  Year 4  98.95  Year 4  98.95  These values represent the carbon intensities will intensity of electricity supply), ut	Year 5 98.95 Year 5 98.95 Year 5 98.95 on intensity for this are de of combined heat are of combined heat wary by project, and	kig CO2e/participant kig CO2e/	Utilities shall file a high low, and espected greenhouse gas intensity for invovative recurrent included in a proposed Natural Gas Invovation (NCIA) plan where applicable, sight and for scorance shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.  If you have a support of the expected greenhouse gas reduction of pilot programs and NGIA plans.
	This section does not apply to all pilot types. The GHG changes from decreas Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C Low Expected High Lifecycle GHG Intensity Savings, Size C Low Calculations & Other Explanation: Low Scenario Expected Scenario	Year 1  Year 1  98.95  Government of participation are the relative transfer or the participation are the relative transfer or the relat	98.95  Year 2  98.95  Year 2  98.95  Year 2  98.95  A star be a st	Year 3 98.95 Year 3 98.95 Year 3 98.95 Size C (33)	Year 4  98.95  Year 4  98.95  Year 4  98.95  These values represent the carbointensity of electricity supply, us Note that GRET's rules for CCPS Carbon intensity secres.	Year 5 98.95 Year 5 98.95 Year 5 98.95 on intensity for this are de of combined heat are of combined heat wary by project, and	kig CO2e/participant kig CO2e/	Utilities shall file a high low, and espected greenhouse gas intensity for irrovative resources included in a proposed Natural Cas Irrovation Action (NCAL) plan where applicable, sight and for scoratios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Espected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.  In green the expected greenhouse gas reduction of pilot programs and NGIA plans.
INTENSITY BY PROJECT SIZE	This section does not apply to all pilot types. The GHG changes from decrease Lifecycle GHG Intensity Savings, Size A Low Expected High Lifecycle GHG Intensity Savings, Size B Low Expected High Lifecycle GHG Intensity Savings, Size C Low Expected High Calculations & Other Explanation: Low Scenario Expected Scenario High Scenario Default Geologic Gas Emissions Factor RNG GHG factor, updated for grid mix factors 2025, 2030, and 2035	Year 1  Year 1  98.95  Government of participation are the relative transfer or the participation are the relative transfer or the relat	98.95  Year 2  98.95  Year 2  98.95  Year 2  98.95  (33)  2024–2028 period, using 2025 grid mix	Year 3 98.95 Year 3 98.95 Year 3 98.95 Size C (33)	Year 4  98.95  Year 4  98.95  Year 4  98.95  These values represent the carbointensity of electricity supply, us Note that GRET's rules for CCPS Carbon intensity secres.	Year 5 98.95 Year 5 98.95 Year 5 98.95 on intensity for this are de of combined heat are of combined heat wary by project, and	kig CO2e/participant kig CO2e/	Utilities shall file a high low, and espected greenhouse gas intensity for irrovative resources included in a proposed Natural Cas Irrovation Action (NCAL) plan where applicable, sight and for scoratios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Espected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.  In green the expected greenhouse gas reduction of pilot programs and NGIA plans.

Calculations & Other Explanation:

VARIABLE O&M	Variable O&M Cost, Applies to all project sizes <u>Calculations &amp; Other Explanation:</u> Escalation rat	Year \$	0.05 \$	sible given the combinat Year 2 0.04 Year 2 -5.250%	Year 3  Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:  per Dth  (for each pilot analysis year)	specific utility proposals. For ex- transported to customers on the evaluation criteria.	ample, resources like power-to-hydr e distribution system. Variable O&M	e for other innovative resources should be considered in the context of ogen and RNG may not decrease OSM costs as they also need to be will be used in the tilisty Cost and Nor Participant: Cost tests for the NGIA in the price of natural gas between 2023 through 2027 to all users in the Wes
NON-GAS FUEL COST	Non-Gas (i.e., Electric) Fuel Cost Calculations & Other Explanation:	\$	44.14 per N	(Nominal) Cost Unit:	The CIP methodology is used I	'or all resources other than str eal-time final market locations	ategic electrification I marginal prices (i	on. The method for strategic electrification should be LMP) at the Minnesotta Hub from January I, 2022 to D	considered in the context of specific ecember 31, 2022 using data from N	c utility pilot proposals. fidwest Independent System Operati	or (MSO)
NON-GAS FUEL LOSS FACTOR	Non-Gas Fuel Loss Factor <u>Calculations &amp; Other Explanation</u>		8.22%		The CIP methodology is used to reported by Minnesota Power,	or all resources other than str Xcel Energy, and Otter Tail Po	ategic electrification wer's reported 20	on. The method for strategic electrification should be 21 transmission and distribution loss factors and weig	considered in the context of specifi- thting by the utilities' 2017-2019 ave	c utility pilot proposals. In the most n rage retail sales	ocent CP, Staff used the weighted average of the most recent loss factors
OTHER QUANTITATION	/F CRITERIA:										
OTHER NON-GHG	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations & Other Explanation.	\$ \$ \$ \$	0.37 per E 0.37 per E 0.37 per E	)th	Commission's approved dollar populations. For example, an e	per ton environmental cost v nergy efficiency project that t ans if they can provide justifics	ilues using escalat argets an urban an	ion rate to adjust by observed inflation between 2014 ea might use the urban value rather than the metropo	and 2021. Stakeholders expressed litan fringe value. Similarly, a project	a preference for allowing utilities to a targeting a low-income population r	2001 distinct in Table 2 below, which were calculated by inflating the elect different externality values for pilots targeting specific geographies or right use a high value rather than the median Differs can make deviations lessions January 3, 2018 Order in Docket No. E8999/CI-14-643, utilities may
	Net Direct Job Creation, Size A Net Direct Job Creation, Size B Net Direct Job Creation, Size C	Year	0 0	Year 2	Year 3  1	Year 4  1 1 5	Year 5	Total during 5 program years  1		# of jobs # of jobs # of jobs	hillities should consider both jobs created by proposed pilots and jobs that nay be eliminated by proposed pilots.
NET JOB CREATION	Net Indirect Job Creation, Size A Net Indirect Job Creation, Size B Net Indirect Job Creation, Size C	Year	0 0 0	Year 2	Year 3  2 1 3 3 13	Year 4  1 3 12	Year 5	Total during 5 program years  1 3 12	11 18		trilities should consider both jobs created by proposed pilots and jobs that nay be eliminated by proposed pilots.
	Net induced Job Creation, Size A	Year	0	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life 5	# of jobs	
PUBLIC CO- BENEFITS	Public Co-Benefits, Size A Public Co-Benefits, Size B Public Co-Benefits, Size C Calculations & Other Explanation:	Year \$ \$ \$ \$	1 - \$ - \$ - \$ - \$ - \$	Year 2	Year 3	Year 4	Year 5 -	USD (Nominal) Cost Unit: per year per year per year	Quantifiable in some cases. If the Considerations section below.	is metric isn't quantifiable, there is s	oace for any qualitative comments in the Additional Qualitative
WATER POLLUTION	Water Pollution, Size A Water Pollution, Size B Water Pollution, Size C Calculations & Other Explanation:	Year \$ \$ \$	1 - \$ - \$ - \$	Year 2 - - -	Year 3	Year 4	Year 5 -	USD (Nominal) Cost Unit: per year per year per year	The legislation left the door ope this metric isn't quantifiable, the	n to quantify any costs and benefits re is space for any qualitative comm	on water pollution. This might be quantifiable for some of the projects. If ents in the Additional Qualitative Considerations section below.
ADDITIONAL QUALIT	ATIVE CONSIDERATIONS:						_				
NGIA Utility Perspective Notes: Definition:	It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and CIP quantification methods.										
NGIA Participants'											

It is expected that many of the elements of the participant perspective, with respect to the direct effect of pilots, will be quantifiable and will rely on the structural values. Add here any information related to some direct effects of pilots on participants that may not be easily quantifiable. For example, increased comfort in a home and health benefits from pilots that improve indoor air quality are two examples of benefits that may be difficult to quantify.

NGIA Nonparticipating	
Customers'	
Perspective Notes:	As with the utility perspective, the direct effects of pilot programs on non-
	As with an businy perspective, are direct effects on paos programs on non- participating extenders should be quantified in most cases and can be heavily informed by structural values.
Definition:	informed by structural values.
	Provides widespread benefits to all sales customers
Effects on Other	
Effects on Other Energy Systems	
and Energy	
Security: Definition:	
	NGIA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utility and its customers. Measures like strategic electrification specifically require gas utilities and the Commission to avoid negative effects on the electric system. Further, the
	NGIA empowers the Commission to consider a wide variety of "costs and benefits that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel markets.  Company will give preference to fuel made in MN that will reduce import from outside of MN
	Company will give preference to toel made in wix that will reduce import from outside or wix
GHG Emissions	
Notes: Definition:	An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion
Janeton.	An infloration pair that include de to call messalori auta mensalori auta mensalo
Other Pollution Notes:	
Definition:	
	Include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air qualify benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.
	Dairy manure projects can have local water quality, odor benefits
Waste Reduction	
and Reuse Notes:	
Definition:	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes reduction of water use.
Definition:	resources or water use.  daily project all make a useful product from waste
Policy Notes:	
	NGA is intended to help the state achieve certain environmental policy goals
Definition:	including geologic gas throughput reduction and increased use of renewable resources.
	Reduces fossil gas throughput; increases use of renewable energy
Net Job Creation	
Notes:	
	An innovation plan must include, as applicable, "projected local job impacts
	An inhovation plan must, include, as applicable, projected ocal pot impacts resulting from implementation of the plan." Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.
Definition:	created by proposed pilots and jobs that may be eliminated by proposed pilots.
<u>Economic</u>	
Development	
Notes:	
Definition:	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional exonomic heavily.
	economic Detrents.
Public Co-Benefits	
Notes: Definition:	
DOMINION:	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.
Market Development	
Notes:	
Definition:	
	The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are realized

Direct Innovation
Support Notes:
Definition:

are intended to lead to future opportunities.

Opportunity for Company to learn about purchasing RNG

Resource Scalability and Role in a Decarbonized System Notes:

While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.

Realistic pathways to decarbonization include RNG

FICF	CNPO5 - RNG Archetype - Food Waste	Click here to go back to the list of all pilots				N	GIA Pilot Profiles Workbook	
	Pilot Project Code:	CNP05						
	Pilot Project Name:	RNG Archetype - Food Waste						
	Customer Class/ Sector:	C&I & Res						
	Low-Income Community Benefit?	N Tarakan adalah						
	Target Area:	Territory-wide Renewable Natural Gas (RNG)	Select primary Innovation Category. Oth	are and by Estad barry		_		
	Primary Innovative Resource Category:	Renewable Natural Gas (RNG)	select primary innovation category. Oth	ers can be listed here.		_		
	Pilot Description:							
	For Pilots 3-6, the "RNG Archetypes", CenterPoint Energy would purchase RNG - in	cluding the commodity and environmental attribute	s - from multiple RNG producers that ha	e developed RNG project	s using a variety of fo	eedstocks CNP m	av also support RNG project development	by directly investing in the biogas upgrading
	equipment (required to produce pipeline-quality RNG) for a limited number of RN							
								· ·
DESCRIPTION								
	Overview of Program/ Implementation Approach: CenterPoint Energy would likely issue a request for proposals (RFP) from RNG pro	innt developmen. The DED property would halp Control	sist Force to manimize and offertion		of DNC overhead f			
	Centerr office chergy would likely laste a request for proposals (KFF) from KNO pro	ject developers. The Kir process would help center	onic Energy to maximize cost-enective	less by building a portion	or Kiva parchases i	rom a variety or p	rojects and under customized contract ten	III.
	Other Comments / Information:							
	For the purposes of this analysis, assumes offtake from developer or other entity,	not capital investment from CNP.						
KEY PILOT-SPECIFIC	INDITS:							
NETTIEST STESHIS	111 010.							
	Pilot Year	Year 1	Year 2 Yea	· 3 Ye	ar 4	Year 5		
	Calendar Year	2024	2025	2026	2027	2028		
	Participating Units, Size A Participating Units, Size B		10,000 220,000			Di	ekatherms of gas purchased as offtake in single year	Incremental units added, annual (not cumulative).
	Participating Units, Size B Participating Units. Size C		500.000			N	ote, this represents the annual RNG (Dth/year) that v	vill be purchased through a multi-year agreement (project life defined below) starting in this year.
	raticipating office, 5/20 C	Units above are to annual dekatherms of RNG sup		ntract starts)				
	Calculations & Other Explanation:	Sizes are placeholder assumptions to show a range	of RNG purchase volumes (NGIA rules re	quire at least half of the b	udget to be for low-o	carbon fuels. like R	NG and Hydrogen).	
		· · · · · · · · · · · · · · · · · · ·			=			
		Year 1	Year 2 Yea		ar 4	Year 5		
	Cumulative RNG Supply (Dth/year), Size A	<del>-</del>	10,000	10,000	10,000	10,000		
	Cumulative RNG Supply (Dth/year), Size B Cumulative RNG Supply (Dth/year), Size C	-	220,000 500.000	220,000 500.000	220,000 500.000	220,000 500.000		
	Cumulative RNG Supply (Dtil/year), Size C	-	300,000	300,000	500,000	500,000		
NUMBER OF								
PARTICIPANTS	Assumed Number of GHG Verifications Required, Size A	0	1	1	1	1		
	Assumed Number of GHG Verifications Required, Size B	0	2	2	2	2 U	ncertain how many RNG projects would be	needed, conservatively assuming multiple verifications.
	Assumed Number of GHG Verifications Required, Size C	0	3	3	3	3 U	ncertain how many RNG projects would be	needed, conservatively assuming multiple verifications.
		Year 1	Year 2 Yea	3 Ye	ar 4	Year 5 U	SD (Nominal) Cost Unit:	
	Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B	\$ 12,250 \$ 12,250	\$ 233,742 \$ \$ 4,329,744 \$	242,477 \$ 4.361,580 \$	245,283 \$ 4.415.121 \$	247,974 to	otal cost per year otal cost per year	These incremental utility costs are what will count against the NGIA budget cap for this measure and will be used in the Utility Cost, and Non Participant Cost tests for the NGIA evaluation criteria. This is the sum of utility admin costs to run pilot, any incentive funding to support proj
	Annual Total Utility Incremental Cost, Size C	\$ 12,250	\$ 9.726.484 \$	9.842.051 \$	9.963.238 \$	10.078.095 to	otal cost per year	deployment, and/or the utility's annual revenue requirement for capital investments made on select pilots.
	,							
		Year 1	Year 2 Yea	r3 Ye	ar 4	Year 5 U	SD (Nominal) Cost Unit:	
	Fixed O&M Cost, Size A	\$ 12,250	\$ 233,742 \$	242,477 \$	245,283 \$	247,974 to	otal cost per year	Fixed O&M Cost is the result of adding up Total Project Delivery, Advertising and Promotions, Utility Administration, Trade Ally Incentives, and Workforce Development of Market Transformation Cost
	Fixed O&M Cost, Size B Fixed O&M Cost, Size C	\$ 12,250	\$ 4,329,744 \$	4,361,580 \$	4,415,121 \$	4,465,883 to	otal cost per year otal cost per year	workforce Development or Market Transformation Cost
	Fixed Own Cost, Size C	\$ 12,250	\$ 9,726,484 \$	9,842,051   \$	9,963,238	10,078,095	otal cost per year	
		Year 1	Year 2 Yea	r3 Ye	ar 4	Year 5 U	SD (Nominal) Cost Unit:	
	Total Project Delivery, Size A	\$ 12,250	\$ 233,427 \$	242,477 \$	245,283 \$	247,974 p	er year	Total internal and external project delivery
	Total Project Delivery, Size B	\$ 12,250	\$ 4,327,623 \$	4,361,580 \$	4,415,121 \$	4,465,883 p	er year	
	Total Project Delivery, Size C	\$ 12,250	\$ 9,725,095 \$	9,842,051 \$	9,963,238 \$	10,078,095 p	er year	
		Year 1	Year 2 Yea	. a v	ear 4	Vess F II	SD (Nominal) Cost Unit:	
	Internal Project Delivery, Size A	\$ 12.250		12.996 \$	13.386 \$	Year 5 U		CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Internal Project Delivery, Size R	\$ 12,250		12,996 \$	13.386 \$	13,787 p		on stain. These costs are sub-set of the only tixed out took citiegery above.
	Internal Project Delivery, Size C	\$ 12,250		12,996 \$	13,386 \$	13,787 p		
			•					
		Year 1	Year 2 Yea		ear 4		SD (Nominal) Cost Unit:	
	External Project Delivery, Size A	\$ -		229,481 \$ 1.348.584 \$	231,897 \$ 4.401,735 \$	234,186 p	er year	External vendor costs would include direct install costs where CNP reimburses the vendor. These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	External Project Delivery, Size B External Project Delivery, Size C	\$ -		1,348,584 \$ 9.829.055 \$	4,401,735 \$ 9.949.852 \$	4,452,095 p 10,064,308 p	er year	
	External Froject Scrivery, size C	-	ψ σ,703,00 <del>4</del>   φ	,020,000   4	a,a4a,032 \$	.о,ооч,ооо р	or your	
		Year 1	Year 2 Yea	r3 Ye	ar 4		SD (Nominal) Cost Unit:	
	Advertising and Promotions, Size A	\$ -	\$ 315 \$	- \$	- \$	- p	er year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Advertising and Promotions, Size B	\$ -	\$ 2,120 \$	- \$	- \$	- p	er year	
	Advertising and Promotions, Size C	2 -	\$ 1,389 \$	- \$	- \$	- p	er year	
		Year 1	Year 2 Yea	r3 Ye	ear 4	Year 5 U	SD (Nominal) Cost Unit:	
	Allocation of General Portfolio Costs, Size A						er year	Share of portfolio level costs, including plan development costs, regulatory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size B						er year	

Trade Total	cation of General Portfolio Costs, Size C  de Ally Incentives, Size B  de Ally Incentives, Size C  rifforce Development or Market Transformation Cost, Size A  rifforce Development or Market Transformation Cost, Size B  rifforce Development or Market Transformation Cost, Size B  er Fixed O&M Cost, Size A  der Fixed O&M Cost, Size A  ser Fixed O&M Cost, Size B  der Fixed O&M Cost, Size B  al utility capital investment, Size A  al utility capital investment, Size B  al utility capital investment, Size B  al utility capital investment, Size C  Annual Revenue Requirement for Capital Projects, Size A  Annual Revenue Requirement for Capital Projects, Size B  Annual Revenue Requirement for Capital Projects, Size A  Total Revenue Requirement for Capital Projects, Size A  Total Revenue Requirement for Capital Projects, Size B  Total Revenue Requirement for Capital Projects, Size B  antives, Size A  partives, Size A  partives, Size A  particles, Size C  antives, Size C  antives, Size C	Year 1   S	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	ear	Year 3 - \$	Year 4  \$ \$ \$ \$ \$ \$ \$ \$ \$  Year 4  \$ \$ \$ \$  Year 4  \$ \$ \$  Year 4  \$ \$  Year 4  \$ \$ \$  Year 4  \$ \$ \$ \$ \$  Year 4  \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year S - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	per year  USD (Nominal) Cost Unit:  per year  per year  per year  USD (Nominal) Cost Unit:  per year  per year  USD (Nominal) Cost Unit:  per year  USD (Nominal) Cost Unit:  per year  USD (Nominal) Cost Unit:  per year  per year  USD (Nominal) Cost Unit:  per year  USD (Nominal) Cost Unit:  per year  USD (Nominal) Cost Unit:  per year  per year  USD (Nominal) Cost Unit:  per year  per year  per year  USD (Nominal) Cost Unit:	If applicable, include here the annual amount of trade ally incentives (e.g. midstream program)  These costs are sub-set of the Utility Tixed OSM Cost category above.  These costs are sub-set of the Utility Tixed OSM Cost category above.  These costs are sub-set of the Utility Tixed OSM Cost category above.  This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed int incremental costs for NOIA, but instead will be used to estimate the trining and level of annual revenue requirement resulting from these investments (shown below).  For capital projects, the incremental cost impact on the NOIA budget is the annual revenue requirement (return of and on capital additioned as the utility Texal OSM Costs* capitared above. The revenue requirement is calculated from the magnitude is timing of capital investments.
Trade Trade Work Work Work Work Other Other Total Tota	de Ally Incentives, Size B de Ally Incentives, Size B de Ally Incentives, Size C referore Development or Market Transformation Cost. Size A referore Development or Market Transformation Cost. Size B referore Development or Market Transformation Cost. Size C ser Fixed O&M Cost. Size A ser Fixed O&M Cost. Size B ser Fixed O&M Cost. Size B all utility capital investment. Size B all utility capital investment. Size B all utility capital investment. Size C  Annual Revenue Requirement for Capital Projects, Size A Annual Revenue Requirement for Capital Projects, Size C  Total Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2 Year 2 Year 2 Year 2 (Nominal) Cost Usear	- \$ \$ Year 3 \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- S - S - S - S - S - S - S - S - S - S	per year per year  USD (Nominal) Cost Unit: per year per year per year per year USD (Nominal) Cost Unit: per year USD (Nominal) Cost Unit: per year per year per year USD (Nominal) Cost Unit: per year USD (Nominal) Cost Unit: per year USD (Nominal) Cost Unit:	These costs are sub-set of the Utility 'Fixed O&M Cost' category above.  These costs are sub-set of the Utility 'Fixed O&M Cost' category above.  This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed int incremental costs for NDIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these investments (shown below).  For capital projects, the incremental cost impact on the NDIA budget is the annual revenue requirement (return of and on capital additional and the utility 'Fixed O&M Costs' capitared above. This revenue requirement is calculated from the magnitude & timing of capital and level as the utility 'Fixed O&M Costs' capitared above. This revenue requirement is calculated from the magnitude & timing of capital and level.
Unity PILOT Other Other Other Other Other Other Other Incention Incentioner In	de Ally Incentives, Size C  referore Development or Market Transformation Cost, Size A  referore Development or Market Transformation Cost, Size B  referore Development or Market Transformation Cost, Size B  referore Development or Market Transformation Cost, Size C   eer Fixed O&M Cost, Size A  eer Fixed O&M Cost, Size B  eer Fixed O&M Cost, Size B  eer Fixed O&M Cost, Size B  el visit Size C   all utility capital investment, Size A  all utility capital investment, Size B  el utility capital investment, Size C   Annual Revenue Requirement for Capital Projects, Size A  Annual Revenue Requirement for Capital Projects, Size C   Total Revenue Requirement for Capital Projects, Size A  Total Revenue Requirement for Capital Projects, Size A  Total Revenue Requirement for Capital Projects, Size B  Total Revenue Requirement for Capital Projects, Size C   entives, Size A  entives, Size A  entives, Size B  entives, Size B  entives, Size B  entives, Size B  entives, Size C	\$   Year 1   \$   \$   \$   \$   \$   \$   \$   \$   \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  Year 2  Year 2  (Nominal) Cost Urear	- \$ \$ Year 3 \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	per year  USD (Nominal) Cost Unit:  per year  per year  per year  per year  USD (Nominal) Cost Unit:  per year  per year  USD (Nominal) Cost Unit:  per year  USD (Nominal) Cost Unit:  per year  USD (Nominal) Cost Unit:  per year  per year  per year  per year  per year  per year	These costs are sub-set of the Utility 'Fixed O&M Cost' category above.  This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed int incremental costs for NOIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these investments (shown below).  For capital projects, the incremental cost impact on the NOIA budget is the annual revenue requirement (return of and on capital additional and the capital projects of the incremental cost impact on the NOIA budget is the annual revenue requirement feature of and on capital additional and the capital projects.
LITY PILOT COSTS Other Other Total T	rkforce Development or Market Transformation Cost. Size A rkforce Development or Market Transformation Cost. Size B rkforce Development or Market Transformation Cost. Size C lear Fixed O&M Cost. Size A ref Fixed O&M Cost. Size B er Fixed O&M Cost. Size B er Fixed O&M Cost. Size B er Fixed O&M Cost. Size C all utility capital investment. Size B all utility capital investment. Size B all utility capital investment. Size C Annual Revenue Requirement for Capital Projects, Size A Annual Revenue Requirement for Capital Projects, Size C Total Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size C sentives, Size A Size B antives, Size A pottives, Size A pottives, Size B antives, Size C	\$   Year 1   \$   \$   \$   \$   \$   \$   \$   \$   \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  Year 2  Year 2  (Nominal) Cost Urear	- \$ \$ Year 3 \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	USD (Nominal) Cost Unit:  - per year - per year - per year - USD (Nominal) Cost Unit: - per year - USD (Nominal) Cost Unit: - per year	These costs are sub-set of the Utility 'Fixed O&M Cost' category above.  This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed int incremental costs for NOIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these investments (shown below).  For capital projects, the incremental cost impact on the NOIA budget is the annual revenue requirement (return of and on capital additional and the capital projects of the incremental cost impact on the NOIA budget is the annual revenue requirement feature of and on capital additional and the capital projects.
Work Work Work Work Work Work Work Work	risforce Development or Market Transformation Cost, Size B risforce Development or Market Transformation Cost, Size C steer Fixed O&M Cost, Size A seer Fixed O&M Cost, Size B ser Fixed O&M Cost, Size B ser Fixed O&M Cost, Size B all utility capital investment, Size A all utility capital investment, Size B all utility capital investment, Size B all utility capital investment, Size C Annual Revenue Requirement for Capital Projects, Size A Annual Revenue Requirement for Capital Projects, Size B Annual Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size B strives, Size A services, Size A services, Size B services, Size Size Size Size Size Size Size Size	\$   Year 1   \$   \$   \$   \$   \$   \$   \$   \$   \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  Year 2  Year 2  (Nominal) Cost Urear	- \$ \$ Year 3 \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	per year per year per year  USD (Nominal) Cost Unit: per year per year  USD (Nominal) Cost Unit: per year per year USD (Nominal) Cost Unit: per year per year per year USD (Nominal) Cost Unit:	These costs are sub-set of the Utility 'Fixed O&M Cost' category above.  This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed int incremental costs for NOIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these investments (shown below).  For capital projects, the incremental cost impact on the NOIA budget is the annual revenue requirement (return of and on capital additional and the capital projects of the incremental cost impact on the NOIA budget is the annual revenue requirement feature of and on capital additional and the capital projects.
Work Work Work Work Work Work Work Total Other O	risforce Development or Market Transformation Cost, Size B risforce Development or Market Transformation Cost, Size C steer Fixed O&M Cost, Size A seer Fixed O&M Cost, Size B ser Fixed O&M Cost, Size B ser Fixed O&M Cost, Size B all utility capital investment, Size A all utility capital investment, Size B all utility capital investment, Size B all utility capital investment, Size C Annual Revenue Requirement for Capital Projects, Size A Annual Revenue Requirement for Capital Projects, Size B Annual Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size B strives, Size A services, Size A services, Size B services, Size Size Size Size Size Size Size Size	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2 Year 2 (Nominal) Cost Urear	- \$ \$ Year3 \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$	- per year - per year - per year  USD (Nominal) Cost Unit: - per year - per year - per year  USD (Nominal) Cost Unit: - per year	These costs are sub-set of the Utility 'Fixed O&M Cost' category above.  This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed int incremental costs for NOIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these investments (shown below).  For capital projects, the incremental cost impact on the NOIA budget is the annual revenue requirement (return of and on capital additional and the capital projects of the incremental cost impact on the NOIA budget is the annual revenue requirement feature of and on capital additional and the capital projects.
Works  ITY PILOT Other Other Other Other Other Other Itel I Total Total Total Total Total Total I Tota	rifdorce Development or Market Transformation Cost, Size C  ser Fixed O&M Cost, Size A  ser Fixed O&M Cost, Size B  ser Fixed O&M Cost, Size B  ser Fixed O&M Cost, Size B  ser Fixed O&M Cost, Size C  al utility capital investment, Size A  al utility capital investment, Size B  sol utility capital investment, Size B  sol utility capital investment, Size C  Annual Revenue Requirement for Capital Projects, Size A  Annual Revenue Requirement for Capital Projects, Size C  Total Revenue Requirement for Capital Projects, Size A  Total Revenue Requirement for Capital Projects, Size A  Total Revenue Requirement for Capital Projects, Size C  sentives, Size A  notives, Size A  notives, Size B  notives, Size C	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2 Year 2 (Nominal) Cost Urear	- \$ \$ Year3 \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$	uSD (Nominal) Cost Unit: per year per year per year uSD (Nominal) Cost Unit: per year uSD (Nominal) Cost Unit: per year per year uSD (Nominal) Cost Unit: per year uSD (Nominal) Cost Unit:	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed in incremental costs for Kolik, but instead will be used to estimate the trining and level of annual revenue requirement resulting from the investments (shown below).  For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additional and the utility Twad DGM Costs' captured above. This revenue requirement is calculated from the magnitude 6 timing of capital in
ITY PILOT Other Ot	er Fixed O&M Cost, Size A er Fixed O&M Cost, Size B er Fixed O&M Cost, Size B all utility capital investment, Size A all utility capital investment, Size B all utility capital investment, Size B all utility capital investment, Size C  Annual Revenue Requirement for Capital Projects, Size A Annual Revenue Requirement for Capital Projects, Size B Annual Revenue Requirement for Capital Projects, Size C  Total Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size B entives, Size A entives, Size A entives, Size B entives, Size B entives, Size C	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2 Year 2 (Nominal) Cost Urear	- \$ \$ Year3 \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$	USD (Nominal) Cost Unit:  per year per year per year USD (Nominal) Cost Unit: per year usp (Nominal) Cost Unit: per year per year USD (Nominal) Cost Unit: per year per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed in incremental costs for Kolik, but instead will be used to estimate the trining and level of annual revenue requirement resulting from the investments (shown below).  For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additional and the utility Twad DGM Costs' captured above. This revenue requirement is calculated from the magnitude 6 timing of capital in
Other	ier Fixed O&M Cost, Size B ere Fixed O&M Cost, Size C all utility capital investment, Size A all utility capital investment, Size B all utility capital investment, Size B all utility capital investment, Size C  Annual Revenue Requirement for Capital Projects, Size A Annual Revenue Requirement for Capital Projects, Size B Annual Revenue Requirement for Capital Projects, Size C  Total Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size B antives, Size A portives, Size A portives, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2 Year 2 (Nominal) Cost Urear	- \$ \$ Year3 \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$	- per year - per year - per year - per year  USD (Nominal) Cost Unit: - per year - per year - per year - USD (Nominal) Cost Unit: - per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed in incremental costs for Kolik, but instead will be used to estimate the trining and level of annual revenue requirement resulting from the investments (shown below).  For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additional and the utility Twad DGM Costs' captured above. This revenue requirement is calculated from the magnitude 6 timing of capital in
Other	ier Fixed O&M Cost, Size B ere Fixed O&M Cost, Size C all utility capital investment, Size A all utility capital investment, Size B all utility capital investment, Size B all utility capital investment, Size C  Annual Revenue Requirement for Capital Projects, Size A Annual Revenue Requirement for Capital Projects, Size B Annual Revenue Requirement for Capital Projects, Size C  Total Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size B antives, Size A portives, Size A portives, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  (Nominal) Cost Usear	Year 3 - \$	Year 4 \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$	per year  USD (Nominal) Cost Unit: per year per year per year USD (Nominal) Cost Unit: per year USD (Nominal) Cost Unit: per year per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed in incremental costs for KNIQL but instead will be used to estimate the timing and level of annual revenue requirement resulting from the investments (shown below).  For capital projects, the incremental cost impact on the NIQL budget is the annual revenue requirement (return of and on capital addressed as the utility "Read OSM Costs" captured above. This revenue requirement is calculated from the magnitude 6 timing of capital in
Other Total Total Total Est. A. Est. A. Est. T. Est. T. Incen Ince	er Fixed O&M Cost, Size C  al utility capital investment, Size A  al utility capital investment, Size B  al utility capital investment, Size C  Annual Revenue Requirement for Capital Projects, Size A  Annual Revenue Requirement for Capital Projects, Size B  Annual Revenue Requirement for Capital Projects, Size C  Total Revenue Requirement for Capital Projects, Size A  Total Revenue Requirement for Capital Projects, Size B  Total Revenue Requirement for Capital Projects, Size B  Total Revenue Requirement for Capital Projects, Size C  entives, Size A  entives, Size A  entives, Size B  entives, Size B  entives, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  (Nominal) Cost Usear	- \$	\$ \$ \$ Year 4	- \$ - \$ - \$	USD (Nominal) Cost Unit:  per year  per year  per year  USD (Nominal) Cost Unit:  per year  USP (year)	incremental costs for NIGLA but instead will be used to estimate the timing and level of annual revenue requirement resulting from the twestments (shown below)  For capital projects, the incremental cost impact on the NIGLA budget is the annual revenue requirement (return of and on capital addition and the full budget is the annual revenue requirement (return of and on capital addition) and the full budget is the annual revenue requirement (return of and on capital addition).
Total Total Total  Est. A Est. A Est. A Est. T  Incen	al utility capital investment, Size B of utility capital investment, Size C  Annual Revenue Requirement for Capital Projects, Size A  Annual Revenue Requirement for Capital Projects, Size B  Annual Revenue Requirement for Capital Projects, Size B  Total Revenue Requirement for Capital Projects, Size A  Total Revenue Requirement for Capital Projects, Size B  Total Revenue Requirement for Capital Projects, Size B  Total Revenue Requirement for Capital Projects, Size B  antives, Size A  entives, Size A  entives, Size B  entives, Size B  entives, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  (Nominal) Cost Usear	- \$	\$ \$ \$ Year 4	- \$ - \$ - \$	- per year - per year - per year  USD (Nominal) Cost Unit: - per year - per year	incremental costs for NIGIA but instead will be used to estimate the liming and level of annual revenue requirement resulting from the twestments (shown below)  For capital projects, the incremental cost impact on the NIGIA budget is the annual revenue requirement (return of and on capital addition and the utility Travel ORM Costs' capitaled soon. This revenue requirement is calculated from the magnitude 6. Siming of capital in and see the utility Travel ORM Costs' capitaled soon. This revenue requirement is calculated from the magnitude 6. Siming of capital in
Total Total Fest A Est A Est A Est T Est T Incen	al utility capital investment, Size B of utility capital investment, Size C  Annual Revenue Requirement for Capital Projects, Size A  Annual Revenue Requirement for Capital Projects, Size B  Annual Revenue Requirement for Capital Projects, Size B  Total Revenue Requirement for Capital Projects, Size A  Total Revenue Requirement for Capital Projects, Size B  Total Revenue Requirement for Capital Projects, Size B  Total Revenue Requirement for Capital Projects, Size B  antives, Size A  entives, Size A  entives, Size B  entives, Size B  entives, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  (Nominal) Cost Usear	- \$	\$ \$ \$ Year 4	- \$ - \$ - \$	- per year - per year - per year  USD (Nominal) Cost Unit: - per year - per year	incremental costs for NIGIA but instead will be used to estimate the liming and level of annual revenue requirement resulting from the twestments (shown below)  For capital projects, the incremental cost impact on the NIGIA budget is the annual revenue requirement (return of and on capital addition and the utility Travel ORM Costs' capitaled soon. This revenue requirement is calculated from the magnitude 6. Siming of capital in and see the utility Travel ORM Costs' capitaled soon. This revenue requirement is calculated from the magnitude 6. Siming of capital in
Est. A. Est. A. Est. A. Est. T. Est. T	al utility capital investment, Size C  Annual Revenue Requirement for Capital Projects, Size A Annual Revenue Requirement for Capital Projects, Size B Annual Revenue Requirement for Capital Projects, Size C  Total Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size C  entives, Size A entives, Size A entives, Size B entives, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ USD - per y	(Nominal) Cost Urear	Year 3 - \$ \$ \$ \$	Year 4	- \$ - \$ - \$ - \$ - \$	- per year  USD (Nominal) Cost Unit: - per year - per year	investments (shown below).  For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital and as the utility "lived OGM Costs" captured above. This revenue requirement is calculated from the magnitude 6. timing of capital in
Est A Est A Est A Est T Est T Est T Est T Incen Incen Incen Incen Incen Incen	Annual Revenue Requirement for Capital Projects, Size A Annual Revenue Requirement for Capital Projects, Size B Annual Revenue Requirement for Capital Projects, Size C Total Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size C sentives, Size A antives, Size A patives, Size B antives, Size B antives, Size B antives, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ USD - per y	(Nominal) Cost Urear	Year 3 - \$ \$ \$ \$	Year 4	Year 5 - \$ - \$ - \$	USD (Nominal) Cost Unit:  per year  per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital add well as the utility Tweed DGM Costs' captured above. This revenue requirement is calculated from the magnitude 6. timing of capital in
Est A Est A Est T Est T Est T Incen Incen Incen Incen Incen	Annual Revenue Requirement for Capital Projects, Size B Annual Revenue Requirement for Capital Projects, Size C  Total Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size C  entives, Size A entives, Size B entives, Size B entives, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ USD - per y	(Nominal) Cost Urear	- \$ - - \$ - - \$ -		Year 5 - \$ - \$ - \$	- per year - per year	well as the utility "Fixed O&M Costs" captured above. This revenue requirement is calculated from the magnitude & timing of capital in
Est A Est A Est T Est T Est T Incen Incen Incen Incen Incen	Annual Revenue Requirement for Capital Projects, Size B Annual Revenue Requirement for Capital Projects, Size C  Total Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size C  entives, Size A entives, Size B entives, Size B entives, Size B	\$	- \$ - \$ USD - per y	ear ear	- \$ - - \$ -	\$ \$	- \$ - \$ - \$	- per year	well as the utility "Fixed O&M Costs" captured above. This revenue requirement is calculated from the magnitude & timing of capital in
Est. To Est. To Est. To Est. To Incern Incer	Annual Revenue Requirement for Capital Projects, Size C  Total Revenue Requirement for Capital Projects, Size A  Total Revenue Requirement for Capital Projects, Size B  Total Revenue Requirement for Capital Projects, Size C  entives, Size A  entives, Size A  entives, Size B	\$	USD - per y	ear ear	- \$ - - \$ -	\$	- \$ - \$		well as the utility "Fixed O&M Costs" captured above. This revenue requirement is calculated from the magnitude & timing of capital in
Est. T. Est. T. Incen Incen Incen Incen Incen Incen	Total Revenue Requirement for Capital Projects, Size A Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size C entives, Size A entives, Size B entives, Size B	\$	- per y	ear ear	nit	5	- \$	- per year	
Est. Ti Est. Ti Incen Incen Incen Incen Incen	Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size C entives, Size A entives, Size B entives, Size B	\$	- per y	ear ear	nit			·	
Est. Ti Est. Ti Incen Incen Incen Incen Incen	Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size C entives, Size A entives, Size B entives, Size B	\$	- per y	ear ear	nit				
Est. Ti Est. Ti Incen Incen Incen Incen Incen	Total Revenue Requirement for Capital Projects, Size B Total Revenue Requirement for Capital Projects, Size C entives, Size A entives, Size B entives, Size B	\$ \$ Year 1 \$ \$ \$ \$	- per y	ear					
Incentincent	Total Revenue Requirement for Capital Projects, Size C entives, Size A entives, Size B entives, Size C	Year 1							The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expecifie (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to co
Incen Incen Incen Incen Incen	entives, Size A entives, Size B entives, Size C	Year 1 \$ \$ \$ \$ \$ \$ \$	- 16						of the NGIA evaluation criteria.
Incen Incen Incen Incen	entives, Size B entives, Size C	Year 1	_   e						
Incen Incen Incen Incen	entives, Size B entives, Size C	\$		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
Incen Incen Incen	entives, Size C	\$	- \$		- \$ -	\$	- \$	- per year - per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cacks or other fungible payments, etc.). Do n here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of onergy/GHG audits or measures), or making a capital investment in a customer's open twhen the customer doesn't hold equipment ownership. Incentives
Incen	entives per Participant, Size A		- \$		- \$ -	S	- \$	- per year	measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives
Incen	entives per Participant, Size A								of the continuent of the text for the one of an engineering contains
Incen		Year 1 #DIV/O!	e	Year 2	Year 3 - #DIV/O!	Year 4 #DIV/0!	Year 5 #DIV/O!	USD (Nominal) Cost Unit: per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
Incen	entives per Participant, Size B	#DIV/O!	\$		- #DIV/O!	#DIV/0!	#DIV/0!	per participant per year	internites per participant is a function of total internites paid directly to continue.
Calcu	entives per Participant, Size C	#DIV/O!	\$		- #DIV/0!	#DIV/0!	#DIV/O!		
Calcu	culations & Other Explanation:								
	culations & Other explanation.	Year 1		Year 2	Year 3	Year 4	Year 5		
	RNG Contract Purchase Cost	t: \$	24.00 \$	24	.00 \$ 24.00	\$ 24	1.00 \$ 24.	1.00 per Dth (1 Dth = 1 MMBtu)	Note – in original Exhibit N these were based on a fixed value for Year 1, but in this combined file they have bee
Incr	Geologic Gas Cost Incremental Fuel Cost cremental Fuel Cost - Average over Contract Life (based on contract start year). M-RETS RTC On-going Registration Costs	t: \$ rt ): \$	5.13 \$ 18.87 \$ 19.63 \$	19	1.86 \$ 4.60 9.14 \$ 19.40 9.73 \$ 19.80	\$ 19	9.64 \$ 19	<b>4.13</b> per Dth 9.87 per Dth	Commodity costs in the original filing.  Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic;  Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract
	M-RETS RTC Upfront Registration Costs.  Project Verification Costs	5:	\$1,500 One	time upfront	Green-E or other cost fo	or project verification			
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	al Pilot Upfront Costs, Size A	\$	196 \$		197 \$ 198			199 per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility co
	al Pilot Upfront Costs, Size B al Pilot Upfront Costs, Size C	\$	196 \$		197 \$ 198 197 <b>\$</b> 198		198 \$	199 per participant 199 per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incent include utility program admin costs.
Total	ai Filot Opiront Costs, 3129 C	4	190 \$		197 \$ 190	•	190 2	per participant	
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	rd Party Funding, Size A rd Party Funding, Size B	\$	- \$		- \$ -	\$	- \$	per participant     per participant	If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for refer used to calculate any of the NGIA evaluation criteria.
	rd Party Funding, Size C	\$	- \$		- \$ -	\$	- \$	- per participant	
Descr	scription of source of external funding:								
				Year 2	Year 3				
Direc	ect Participant Pilot Costs. Size A	Year 1	- \$	Year 2	- \$ -	Year 4	Year 5	USD (Nominal) Cost Unit: per participant	This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are su
	ect Participant Pilot Costs, Size B	•	- \$		- \$ -	\$	- \$	- per participant	from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation cri
OSTS Direct		Ψ			- \$ -				
	ect Participant Pilot Costs, Size C	\$	- \$			3	- \$	- per participant	some pilots taking a 'Direct Install' approach may see the utility covering all costs, with no upfront financial contribution from the part
	•	\$ Year 1	- \$	Vaar 2	Veer 3	Vear 4	- \$	- per participant	some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the part
	act Participant Pilot Costs, Size C culations & Other Explanation: Escalation rate	\$ Year 1	3.82%	Year 2	Year 3 82% 3.82%	Year 4 3.	- \$ Year 5	per participant  82% (for each pilot analysis year)	some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the partit For an escalation rate, we use the average of the 12-month percentage change in the "all Rems" consumer price index available from States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.

	Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C	\$ - \$ - \$ - \$ - per participant per year of pilot life  \$ - \$ - \$ - per participant per year of pilot life  Participant Cost tests for the NGIA evaluation criteria.
	<u>Calculations &amp; Other Explanation:</u> Escalation	Year 1 Year 2 Year 3 Year 4 Year 5  on rate 3.82% 3.82% 3.82% 3.82% (for each pilot analysis year)  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPAN	IT NON-	11 late 3.02.h 3
ENERGY C	COSTS	
		Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:
	Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C	\$ - \$ - \$ - per participant per year of pilot life  \$ - \$ - \$ - per participant per year of pilot life  \$ - \$ - \$ - per participant per year of pilot life  \$ - \$ - \$ - \$ - per participant per year of pilot life
	Calculations & Other Explanation:	\$ - \$ - \$ - per participant per year of pilot life
DADTIOIDAN		
PARTICIPAN ENERGY SA	VINGS	
	Average Lifetime for Savings/Pilot Tech, Size A	10   years
	Average Lifetime for Savings/Pilot Tech, Size B Average Lifetime for Savings/Pilot Tech, Size C	10 years 10 years
	Calculations & Other Explanation:	
PILOT L	IFE	
	Avg. Dth/Participant Saved, Size A	0 Dth/Participant
	Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C	O Dth/Participant O Dth/Participant
	Calculations & Other Explanation:	Changes in natural gas consumption for RNG production are already factored into Carbon Intensity through GREET calculations (avoiding double counting them here).
NATURAL ENERGY SA	VINGS:	
AVG. D PARTICIF SAVE	PANT	
SAVE		
	Avg. Non-Gas Fuel Units/Part. Saved, Size A	Wh/Participant Units are kWh; could technically be other non-NG. Avg. Non-Gas Fuel Units/Part. Saved will be used in the Participant Cost tests for the NGIA evaluation criteria.
	Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C	O kWh/Participant  Wh/Participant
	Avg. Additional Non-Gas Fuel Units/Part.Used, Size A	(kWh/Participant Avg. Additional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.
	Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C	C kWh/Participant kWh/Participant
AVG. NON	I-GAS Calculations & Other Explanation:	Changes in electricity consumption for RNG production are already factored into Carbon Intensity through GREET calculations (avoiding double counting them here).
FUEL UNITS	/ PARI.	

Year 1 Year 2 Year 3 Total Annual Dth Saved, Size A Natural gas energy savings that result from multiplying savings per participant times the total number of new participants in a given year Total Annual Dth Saved, Size B 0.00 Total Annual Dth Saved, Size C Calculations & Other Explanation: OTAL ANNUAL D Grid Mix Scenario Select one of the listed grid mix scenarios taking into account that: Thillies shall use electric utility-specific generation mix information for the renewable natural gas facility when it is reasonably waitable. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from National Renewable Energy Calculations & Other Explanation: GRID MIX SCENARIC Lifecycle GHG Intensity Savings, Size A Year 1 Year 2 Year 3 Year 4 Year 5 Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGM) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other facels used in the resource's Blecycle. Expected greenhouse as intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGM plans. kg CO2e/participant 115.79 kg CO2e/participant Expected 115.79 115.79 115.79 115.79 kg CO2e/participant ifecycle GHG Intensity Savings, Size B Year 1 Year 3 kg CO2e/participant 115.79 kg CO2e/participant Expected kg CO2e/participant Lifecycle GHG Intensity Savings, Size C kg CO2e/participant 79 kg CO2e/participant kg CO2e/participant LIFECYCLE GHG INTENSITY BY PROJECT SIZE Calculations & Other Explanation: GHG Intensity nese values represent the carbon intensity for this project/archetype, as calculated by ICF using GREET. Some default assumptions from GREET have been updated to better reflect typical expectations for RNG projects in Minnesota (e.g. GHG intensity of Size A Size B Size C kg CO2e/Dth on intensities will vary by project, and GREET calculations will be required for specific projects as they are chosen (based on assumed project designs, and later updated for actual operating conditions). Low Scenario Expected Scenario (50) (50) (50) Also note that GREET's rules for carbon accounting (which NGIA legislation requires CenterPoint to follow) differ from California's Low-Carbon Fuel Standard (LCFS) in a number of areas, meaning that these scores can look quite different than California LCFS High Scenario kg CO2e/Dth Default Geologic Gas Emissions Factor 66.14 2024-2028 period, using 2029-2033 period, 2034-2038 period, using using 2030 grid mix 2035 grid mix -44.30 -52.17 RNG GHG factor, updated for grid mix factors 2025, 2030, and 2035 Pilot Lifetime Average 2025 grid mix -49.65 kg CO2e/Dth -53.42 OTHER PILOT-SPECIFIC PARAMETERS (formerly 'General Parameters' in CIP Calculator): The estimated average annual effect of the project on system peak. It is estimated to be 1% for energy efficiency pilots. The method for other innovative resources should be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the Utility Cost and Non Participant Cost tests for the NGIA eak Reduction Factor Calculations & Other Explanation: PEAK REDUCTION

	1				
			bination of formerly separate Exhibits P and N into a single file)		
	Variable O&M Cost, Applies to all project sizes	Year 1 Year 2 \$ 0.05 \$ 0.0	Year 3 Year 4	Year 5 USD (Nominal) Cost Unit: \$ 0.04 per Dth	The CIP methodology is used for energy efficiency. However, the value for other innovative resources should be considered in the context of
	Calculations & Other Explanation:	Year 1 Year 2	Year 3 Year 4	Year 5	specific utility proposals. For example, resources like power-to-hydrogen and RNG may not decrease O&M costs as they also need to be transported to customers on the distribution system. Variable O&M will be used in the Utility Cost and Non Participant Cost tests for the NGIA evaluation criteria.
	Escalation ra		50% -5.250% -5.250%	-5.250% (for each pilot analysis year)	evaluation Uniteria.  Annual Escalabilities Rate calculated using the average percent change in the price of natural gas between 2023 through 2027 to all users in the West North Central Region as estimated in the Energy Information Administration's 2023 Annual Energy Outlook
		-0.052499023 -0.0524990	023 -0.052499023 -0.052499023	0.050400000 (formerly all the state of the st	Li. H
VARIABLE O&M		-0.052499023 -0.0524990	023 -0.052499023 -0.052499023	-0.052499023 (for each pilot analysis year)	
		USD (Nominal) Cost Un			
	Non-Gas (i.e., Electric) Fuel Cost	\$ 44.14 per MWh	The CIP methodology is used for all resources other than strategic equal to the average of daily real-time final market locational marginal equal to the average of daily real-time final market locational marginal equal to the average of daily real-time final market locational marginal equal to the average of daily real-time final market locational marginal equal to the average of daily real-time final market locational marginal equal to the average of daily real-time final market locational marginal equal to the average of daily real-time final market locational marginal equal to the average of daily real-time final market locational marginal equal to the average of daily real-time final market locational marginal equal to the average of the same time to the same time final market locational marginal equal to the average of the same time time time time time time time ti	electrification. The method for strategic electrification should be considinal prices (LMP) at the Minnesota Hub from January 1, 2022 to December	lered in the context of specific utility pilot proposals. er 31, 2022 using data from Midwest Independent System Operator (MISO)
	Calculations & Other Explanation:				
NON-GAS FUEL COST					
	Non-Gas Fuel Loss Factor	8.22%	The CIP methodology is used for all resources other than strategic Minnesota Power, Xcel Energy, and Otter Tail Power's reported 202	electrification. The method for strategic electrification should be consid It transmission and distribution loss factors and weighting by the utilities	lered in the context of specific utility pilot proposals. In the most recent CIP, Staff used the weighted average of the most recent loss factors reported by 1 2017-2019 average retail sales
	Calculations & Other Explanation:				
NON-GAS FUEL LOSS FACTOR					
OTHER QUANTITATI	/E CRITERIA:				
		USD Cost Unit:	Constalling shares from CID with the Till The	during the final annihilation and and	ic Utilities Commission (Commission). The factors are reported in 2021 dollars in Table 2 below, which were calculated by inflating the Commission's
	Other Non-GHG Pollutants, Size A	\$ 0.37 per Dth	approved dollar per ton environmental cost values using escalation	rate to adjust by observed inflation between 2014 and 2021. Stakeholde	ers expressed a preference for allowing utilities to select different externality values for pilots targeting specific geographies or populations. For example,
	Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C	\$ 0.37 per Dth \$ 0.37 per Dth	they can provide justification for the change. Instead of requiring the measure.	e use of median metropolitan fringe value. Smilarly, a projee use of median metropolitan fringe values for all non-GHG pollutants, a	iect targeting a low-income population might use a high value rather than the median. Utilities can make deviations such as these in their NGIA plans if s shown in Table I of the Commission's January 3, 2018 Order in Docket No. E1999/CI-14-843, utilities may use the value most applicable for the pilot or
	Calculations & Other Explanation:				
	Selection & Other Explanation				
OTHER NON-GHG	2024 Gas environmental damage from all criteria pollutants combined	\$ 0.37			
	2022 Gas environmental damage from all criteria pollutants combined	\$ 0.34 per Dth	The factor is calculated using the median range of the f	inal metropolitan fringe environmental cost values approve	ad by the Minnesota Public Utilities Commission (Commission)27 for carbon dioxide (CO2), sulfur dioxide (SO2), fine
			pai accidate marter (FINZ.3), carbon monoxide (CO), nitr	ogen oxides (NOX), and lead (PD); along with estimated nati	ural gas emission factor (or factors) for each emission provided by the Environmental Protection Agency Source: AP-42, Fifth
	Escalation rate from legislation Annual escalation rate	0.0779 2024 USD 3.82%	Annual escalation rate calculated as the average of the	12-month percentage change in the "all items" customer pri	ice index available from the United States Bureau of Labor Statistics between 2018 and 2022.
			https://www.bls.gov/charts/consumer-price-index/con		
		Year 1 Year 2	Year 3 Year 4	Year 5 Total during 5 program years	Remainder of project life
	Net Direct Job Creation, Size A Net Direct Job Creation, Size B	1 test 2	1 1 1	1	3 5 # of jobs Utilities should consider both jobs created by proposed pilots and jobs that
	Net Direct Job Creation, Size B Net Direct Job Creation, Size C	0	15 15 15 34 32 31	31	61 100 # of jobs may be eliminated by proposed pilots.  129 225 # of jobs
	1				

Year 1 Year 5 Total during 5 program years Remainder of project life 3 # of jobs Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots. Net Indirect Job Creation, Size A Net Indirect Job Creation, Size B 54 # of jobs Net Indirect Job Creation, Size C NET JOB CREATION Year 1 Total during 5 program years Net Induced Job Creation, Size A 3 # of jobs Net Induced Job Creation, Size A 62 # of jobs Net Induced Job Creation, Size A Calculations & Other Explanation: Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off. USD (Nominal) Cost Unit: Year 1 Year 2 Year 3 Year 4 Year 5 Public Co-Benefits, Size A per year Quantifiable in some cases. For example, when a utility pays a municipality for RNG produced from wastewater treatment but may be qualitative in other situations. If this metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative Considerations section Public Co-Benefits, Size B per year Public Co-Benefits, Size C Quantifiable in some cases. If this metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative Considerations section below. Calculations & Other Explanation: USD (Nominal) Cost Unit: Year 1 Year 2 Year 3 Year 4 Year 5 per year The legislation left the door open to quantify any costs and benefits on water pollution. This might be quantifiable for some of the projects. Methodology is TBD. If this metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative Considerations Water Pollution, Size B Water Pollution, Size C per year The legislation left the door open to quantify any costs and benefits on water pollution. This might be quantifiable for some of the projects. If this metric isn't quantifiable, there is space for any qualitative comments in the WATER POLLUTION Additional Qualitative Considerations section Calculations & Other Explanation: ITIONAL QUALITATIVE CONSIDERATIONS:

NGIA Utility

It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and

NGIA Participants' Perspective Notes:	
Definition:	t is expected that many of the elements of the participant perspective, with respect to the direct effect of pilots, will be quantifiable. For example, increased comfort in a home and health benefits from pilots that improve indoor air quality are two examples of benefits that may be difficult to quantify.
	health benefits from pilots that improve indoor air quality are two examples of benefits that may be difficult to quantify.
NGIA_	
Nonparticipating	
Customers' Perspective Notes:	
	4s with the utility perspective, the direct effects of pilot programs on non- participating customers should be quantified in most cases and can be heavily
Definition:	informed by structural values.
	Provides widespread benefits to all sales customers
Effects on Other Energy Systems	
Energy Systems and Energy	
Security: Definition:	
	NGIA invites the Commission to consider how innovative resources lit into the energy system with a broader perspective than effects on the gas utility and its customers. Measures like strategic electrification specifically require gas utilities and the Commission to avoid negative effects on the electric system. Further, the NGIA
	empowers the Commission to consider a wide variety of "costs and benefits that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel markets.  Company will give preference to fuel made in MN that will reduce import from outside of MN
GHG Emissions	
Notes:	
Delinidon.	An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.
Other Pollution	
Notes: Definition:	
	nclude any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.
Waste Reduction	
and Reuse Notes:	Waste reduction, reuse, and aneerobic digestion are goals of the NGA. Includes
Definition:	reduction of water use. Food waste projects can have landfill avoidance benefits; foodwaste projects all make a useful product from waste
Policy Notes:	NGIA is intended to help the state achieve certain environmental policy goals
Definition:	including geologic gas throughput reduction and increased use of renewable
Definition:	esources Reduces fosal gas throughput; increases use of renewable energy
Net Job Creation	
Notes:	
	An innovation plan must include as applicable, "projected local job impacts sentition from invalinementation of the jain for light 18 plan to the job in the plan to the job in
Definition:	esulting from implementation of the plan." Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.
Economic Development	
Development Notes:	
Definition:	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional
	economic benefits.
Public Co-Benefits Notes:	
Notes: Definition:	
	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.

### Direct Innovation Support Notes:

This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA.40 are unlikely to produce significant benefits on their own but are intended to lead to future opportunities.

Opportunity for Company to learn about purchasing RNG

# Resource Scalability and Role in a Decarbonized System Notes:

While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.

Realistic pathways to decarbonization include RNG

N/∠ ZICF	CNP06 - RNG Archetype - Landfill Gas	Click here to go back to the list of all pilots  March 15th 2024 Update: The assumed partic	cipating units (e.g. volume of R	NG to be contracted) fro	m this RNG archetype	e has been upda	NGIA Pilot Profiles Workbook ted to help the overall revised portfoli	io align with the cost cap and ensure more than 50% of spending is dedicated to low-carbon fuels. Updated input cell
	Pilot Project Code:	CNP06						
	Pilot Project Name: Customer Class/ Sector:	RNG Archetype - Landfill Gas C&I & Res						
	Customer Class/ Sector: Low-Income Community Benefit?	N N						
	Target Area:	Territory-wide						
	Primary Innovative Resource Category:	Renewable Natural Gas (RNG)	Select primary Innovation C	ategory. Others can be lis	ted here:			
DESCRIPTION	Pilot Description: For Pilots 3-6, the "RNG Archetypes", CenterPoint Energy would purchase RNG upgrading equipment (required to produce pipeline-quality RNG) for a limited							
	Overview of Program/ Implementation Approach:  CenterPoint Energy would likely issue a request for proposals (RFP) from RNG	project developers. The RFP process would help C	CenterPoint Energy to maximize	cost-effectiveness by bu	ilding a portfolio of RN	G purchases from	n a variety of projects and under custor	mized contract terms.
	Other Comments / Information:							
KEY PILOT-SPECIFIC	For the purposes of this analysis, assumes offtake from developer or other en	tity, not capital investment from CNP.						
	Pilot Year	Year 1	Year 2	Year 3	Year 4	Year 5		
	Calendar Year	20	128.750 128.750	2026	2027	20		
	Participating Units, Size A Participating Units, Size B		128,750					single year. Incremental units added, annual (not cumulative).
	Participating Units, Size C		900,000				Note, this represents the annual RNG (Dth/y	ear) that will be purchased through a multi-year agreement (project life defined below) starting in this year.
	Calculations & Other Explanation:	Units above are to annual dekatherms of RNO					- field the DNO and the decree	
	Calculations & Other Explanation.	Sizes are placeholder assumptions to show a r	ange of KNG purchase volumes	(NGIA rules require at lea	st hair of the budget to	o be for low-card	on tuels, like KNG and Hydrogen).	
NUMBER OF		Year 1	Year 2	Year 3	Year 4	Year 5	_	
PARTICIPANTS	Cumulative RNG Supply (Dth/year), Size Cumulative RNG Supply (Dth/year), Size	A B	- 128,750 - 228,750	128,750 228,750	128,750 228,750			
	Cumulative RNG Supply (Dth/year), Size		900,000	900,000	900,000	900,00		
	Assumed Number of GHG Verifications Required, Size Assumed Number of GHG Verifications Required, Size Assumed Number of GHG Verifications Required, Size	B:	0 1 0 2 0 3	1 2 3	1 2 3			would be needed, conservatively assuming multiple verifications. would be needed, conservatively assuming multiple verifications.
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Annual Total Utility Incremental Cost, Size A	\$ 12,25	50 \$ 1,545,993	\$ 1,521,940 \$	1,553,435	\$ 1,583,30	9 total cost per year	These incremental utility costs are what will count against the NGIA budget cap for this measure and will be used in the Utility Cost, and No
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C	\$ 12,25	50 \$ 2,669,106 50 \$ 10,222,471	\$ 2,701,751 \$ \$ 10,421,295 \$	2,757,406	\$ 2,810,1	71 total cost per year 2 total cost per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of utility admin costs to run pilot, any incentive funding to support pr deployment, and/or the utility's annual revenue requirement for capital investments made on select pilots.
	Annual rotal othicy incremental cost, size c	Ψ 12,23	10,222,471	Ψ 10,421,295 Ψ	10,033,120	Ψ 10,040,34		
	Fixed O&M Cost, Size A	Year 1	Year 2 50 \$ 1,545,993	Year 3 \$ 1,521,940 \$	Year 4 1,553,435	Year 5	USD (Nominal) Cost Unit: 9 total cost per year	Fixed O&M Cost is the result of adding up Total Project Delivery, Advertising and Promotions, Utility Administration, Trade Ally Incentives, as
	Fixed O&M Cost, Size B	\$ 12,25			2,757,406		71 total cost per year	Workforce Development of Market Transformation Cost
	Fixed O&M Cost, Size C	\$ 12,25	50 \$ 10,222,471	\$ 10,421,295 \$	10,639,120	\$ 10,845,54	2 total cost per year	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Total Project Delivery, Size A	\$ 12,25	50 \$ 1,541,938	\$ 1,521,940 \$	1,553,435	\$ 1,583,30	9 per year	Total internal and external project delivery
	Total Project Delivery, Size B Total Project Delivery, Size C		50 \$ 2,666,901 50 \$ 10,219,971			\$ 2,810,1	71 per year 2 per year	
	Total Project Delivery, Size C	Ψ 12,2	10,213,371	ψ 10,421,233 ψ	10,000,120	Ψ 10,040,04		
	Internal Project Delivery, Size A	Year 1	Year 2 60 \$ 64,322	Year 3 \$ 12,996 \$	Year 4 13,386	Year 5	USD (Nominal) Cost Unit:	
	Internal Project Delivery, Size A Internal Project Delivery, Size B	\$ 12,25	50 \$ 64,322 50 \$ 34,973		13,386	\$ 13,78	7 per year 7 per year	CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Internal Project Delivery, Size C	\$ 12,25	60 \$ 39,655	\$ 12,996 \$	13,386		7 per year	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	External Project Delivery, Size A	\$	- \$ 1,477,615	\$ 1,508,944 \$	1,540,049	\$ 1,569,52	2 per year	External vendor costs would include direct install costs where CNP reimburses the vendor. These costs are sub-set of the Utility 'Fixed O&N
	External Project Delivery, Size B	\$	- \$ 2,631,928 - \$ 10,180,316				3 per year	Cost" category above.
	External Project Delivery, Size C	\$	- \$ 10,180,316	\$ 10,408,299 \$	10,625,734	\$ 10,831,75	4 per year	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Advertising and Promotions, Size A	\$	- \$ 4,055 - \$ 2,205			\$ -	per year per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Advertising and Promotions, Size B Advertising and Promotions, Size C	\$	- \$ 2,205 - \$ 2,500		-	-	per year per year	
							1	
	Allocation of General Portfolio Costs, Size A	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	Share of portfolio level costs, including plan development costs, regulatory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size B						per year	
	Allocation of General Portfolio Costs, Size C						per year	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Trade Ally Incentives, Size A	\$	- \$ -	\$ - \$	-	\$ -	per year	If applicable, include here the annual amount of trade ally incentives (e.g. midstream program)
	Trade Ally Incentives, Size B Trade Ally Incentives, Size C	\$	- \$ - - \$ -	\$ - \$ \$ - \$		\$ -	per year per year	
	,							

	1	Year 1	Year 2		Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Workforce Development or Market Transformation Cost, Size A	\$	- \$	- \$	- \$	-	\$ -	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Workforce Development or Market Transformation Cost, Size B Workforce Development or Market Transformation Cost. Size C	\$	- \$ - \$	- \$	- \$ - \$		\$ -	per year per year	_
	Worklorde Bevelopment of Market Handrelmation 6650, 6226 6		*	1.			•		
UTILITY PILOT	Other Fixed O&M Cost. Size A	Year 1	Year 2	10	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	These costs are sub-set of the Utility "Fixed OSM Cost" category above.
COSTS	Other Fixed O&M Cost, Size A Other Fixed O&M Cost, Size B	\$	- S	- \$ - \$	- \$		\$ -	per year per year	These costs are sub-set or the Utility. Fixed OWM Cost. Category above.
	Other Fixed O&M Cost, Size C	\$	- \$	- \$	- \$	-	\$ -	per year	
		Year 1	Year 2		Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Total utility capital investment. Size A	\$	- \$	- \$	- \$	rear 4	\$ -	per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the
	Total utility capital investment, Size B	\$	- \$	- \$	- \$	-	\$ -	per year	incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital investments (shown below).
	Total utility capital investment, Size C	\$	- \$	- \$	- \$	-	\$ -	per year	investrients (shown below).
		Year 1	Year 2		Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Est. Annual Revenue Requirement for Capital Projects, Size A	\$	- \$	- \$	- \$	-	\$ -	per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as
	Est. Annual Revenue Requirement for Capital Projects, Size B Est. Annual Revenue Requirement for Capital Projects. Size C	\$	- \$ - \$	- \$	- \$		\$ -	per year per year	well as the utility 'Fixed O&M Costs' captured above. This revenue requirement is calculated from the magnitude & timing of capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
	Est. All India November Requirement for Suprice Projects, Size S	·	1*	1 4			•	per year	
		Total							
	Est. Total Revenue Requirement for Capital Projects, Size A	\$	USD (Nominal) C	ost Unit:					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected
	Est. Total Revenue Requirement for Capital Projects, Size B	\$	- per year						measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
	Est. Total Revenue Requirement for Capital Projects, Size C	\$	- per year						calculate any or the NGIA evaluation criteria.
		Year 1	Year 2		Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives, Size A	\$	- \$	- \$	- \$	-	\$ -	per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc). Do not include
	Incentives, Size B Incentives, Size C	\$	- \$	- \$	- \$	-	\$ -	per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will
	incentives, size C	4	- 3	- 0	- 3		Φ -	per year	ha wearl in the Pertininant Coet tests for the NGIA evaluation criteria
		Year 1	Year 2		Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	_
	Incentives per Participant, Size A Incentives per Participant, Size B	#DIV/0! #DIV/0!	\$	-	#DIV/0! #DIV/0!	#DIV/0! #DIV/0!	#DIV/0! #DIV/0!	per participant per year per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per l'articipant, Size D	#DIV/O!	\$	-	#DIV/0!	#DIV/0!	#DIV/0!	per participant per year	
			<b>"</b>						
	Calculations & Other Explanation:	Year 1	Year 2		Year 3	Year 4	Year 5		
	RNG Contract Purchase Cost:		16.00 \$	16.00 \$	16.00 \$	16.00		per Dth (1 Dth = 1 MMBtu)	
									Note – in original Exhibit N these were based on a fixed value for Year 1, but in this combined file they have been
									linked to the 'Planning Assumptions' from Exhibit P so that commodity price updates are automatically reflected here.  This formula also corrects the mistake CenterPoint Energy reported, about using Year O commodity costs for RNG
	Geologic Gas Cost:	\$	5.13 \$	4.86 \$	4.60 \$	4.36	\$ 4.1	per Dth	Year 1 Commodity costs in the original filing.
	Incremental Fuel Cost:	\$	10.87 \$	11.14 \$	11.40 \$	11.64	\$ 11.8	7 per Dth	Basing costs to CNP on the incremental cost, since RNG offtake contracts will reduce the volumes of geologic gas that
	Incremental Fuel Cost - Average over Contract Life (based on contract start year):								
			11.63 \$	11.73 \$	1180 \$	11.85	\$ 11.8	7 per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract
	, .		11.63 \$	11.73 \$	11.80 \$	11.85	\$ 11.8	7 per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	M-RETS RTC On-going Registration Costs:		\$0.05 \$/Dth, for all Dth	produced each		11.85	\$ 11.8	7 per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	, .			produced each		11.85	\$ 11.8	7 per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	M-RETS RTC On-going Registration Costs:		\$0.05 \$/Dth, for all Dth	produced each		11.85	\$ 11.8	7 per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	M-RETS RTC On-going Registration Costs: M-RETS RTC Upfront Registration Costs:		\$0.05 \$/Dth, for all Dth \$1,500 One time upfron	produced each	h year		\$ 11.8	7 per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	M-RETS RTC On-going Registration Costs:		\$0.05 \$/Dth, for all Dth	produced each			\$ 11.8	7 per Dth	Assumes Incremental Cost from year 5 is unchanged for remaining years of supply contract.
	M-RETS RTC On-going Registration Costs: M-RETS RTC Upfront Registration Costs: Project Verification Costs:		\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year	produced each t	en-Eorothercost for p	oroject verification  Year 4	Year 5	USD (Nominal) Cost Unit:	
	M-RETS RTC On-going Registration Costs: M-RETS RTC Upfront Registration Costs: Project Verification Costs: Total Pilot Upfront Costs, Size A		\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2	produced each	en-E or other cost for p	oroject verification Year 4	Year 5 \$ 11	USD (Nominal) Cost Unit:	This represents the total equipment and installation coarts for technologies implemented as part of this pilot (specifically non-utility capital
	M-RETS RTC On-going Registration Costs: M-RETS RTC Upfront Registration Costs: Project Verification Costs:		\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year	produced each t	en-Eorothercost for p	oroject verification  Year 4	Year 5 \$ 11	USD (Nominal) Cost Unit: 9   per participant 9   per participant	
	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B	Year 1 S S S	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$	produced each t	en-E or other cost for p	oroject verification Year 4	Year 5 \$ 11	USD (Nominal) Cost Unit:    per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor
	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C		\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$	produced each t	en-E or other cost for p	oroject verification Year 4	Year 5 \$ 11	USD (Nominal) Cost Unit: 9 per participant 9 per participant 1 per participant USD (Nominal) Cost Unit:	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B	Year 1 S S S	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$	produced each t	en-E or other cost for p  Year 3  118 \$ 118 \$ 118 \$	Year 4 118 118	Year 5 \$ 11 \$ 11 \$ 11	USD (Nominal) Cost Unit:    per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor
TOTAL AND DIRECT	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B	Year 1 S S S	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$	produced each t	en-E or other cost for p  Year 3  118 \$ 118 \$ 118 \$	Year 4 118 118	Year 5 \$ 11 \$ 11 \$ 11	USD (Nominal) Cost Unit:  9 per participant  9 per participant  9 per participant  USD (Nominal) Cost Unit:  per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it is
TOTAL AND DIRECT PARTICIPANT PILOT COSTS	M-RETS RTC On-going Registration Costs: M-RETS RTC Upfront Registration Costs: M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size A	Year 1 S S S	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$	produced each t	en-E or other cost for p  Year 3  118 \$ 118 \$ 118 \$	Year 4 118 118	Year 5 \$ 11 \$ 11 \$	USD (Nominal) Cost Unit: 9 per participant 9 per participant 9 per participant USD (Nominal) Cost Unit: per participant per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it is
PARTICIPANT PILOT	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C  Description of source of external funding:	Year 1 S S S	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$	produced each t	en-E or other cost for p  Year 3  118 \$ 118 \$ 118 \$	Year 4 118 118	Year 5 \$ 11 \$ 11 \$	USD (Nominal) Cost Unit: 9 per participant 9 per participant 9 per participant USD (Nominal) Cost Unit: per participant per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it is
PARTICIPANT PILOT	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size C  Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:	Year 1 \$ \$ \$  Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$ 116 \$ 116 \$ 117 Year 2 - \$ - \$	produced each t	ren-E or other cost for present the second of the second o	Year 4  18 18 18 Year 4	Year 5 \$ 11 \$ 11 \$ 7 Year 5 \$ - \$ -	USD (Nominal) Cost Unit:  9 per participant 9 per participant 9 per participant USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted
PARTICIPANT PILOT	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A	Year 1 \$ \$ \$  Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$ 116 \$ 116 \$ 117 Year 2 - \$ - \$	produced each t	ren-E or other cost for present the second of the second o	Year 4  18 18 18 Year 4	Year 5 \$ 11 \$ 11 \$ 7 Year 5 \$ - \$ -	USD (Nominal) Cost Unit:    per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g., IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criterie.
PARTICIPANT PILOT	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size C  Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:	Year 1 \$ \$ \$  Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$ 116 \$ 116 \$ 117 Year 2 - \$ - \$	produced each t	ren-E or other cost for present the second of the second o	Year 4  18 18 18 Year 4	Year 5 \$ 11 \$ 11 \$ 7 Year 5 \$ 5 \$ - \$ 5 \$ -	USD (Nominal) Cost Unit:  9 per participant 9 per participant 9 per participant USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGM evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Floic costs will be used in the Participant Cost tests for the NGM evaluation criteria. Note
PARTICIPANT PILOT	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size A Third Party Funding, Size A Dirict Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:	Year 1 S S S Year 1 S S Year 1 S S Year 1 S Year 1 S Year 1	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$ 116 \$ 116 \$ Year 2 - \$ - \$ - \$ - \$ - \$	Greduced each t	ren-E or other cost for property for the	Year 4  18 18 18 18 Year 4  Year 4  Year 4	Year 5 \$ 11 \$ 11  Year 5 \$	USD (Nominal) Cost Unit:  9 per participant  9 per participant  USD (Nominal) Cost Unit: per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g., IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note that the subject costs is a project cost of the NGIA evaluation criteria.
PARTICIPANT PILOT	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C	Year 1 S S S Year 1 S S Year 1 S S Year 1 S Year 1 S Year 1	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$ Year 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	produced each t	Year 3	Year 4  18 18 18 18 7ear 4  - Year 4  Year 4	Year 5 \$ 11 \$ 11  Year 5 \$	USD (Nominal) Cost Unit:    per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGM evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Floic costs will be used in the Participant Cost tests for the NGM evaluation criteria. Note
PARTICIPANT PILOT	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size A Third Party Funding, Size A Dirict Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:	Year 1 \$ \$ Year 1 \$ \$ \$  Year 1 \$ \$  Year 1  Year 1  Year 1	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$ 116 \$ Year 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Greduced each t	Year 3	Year 4  3.82%	Year 5 \$ 11 \$ 11  Year 5 \$	USD (Nominal) Cost Unit:  9 per participant 9 per participant 9 per participant 9 per participant USD (Nominal) Cost Unit: 9 per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured asparately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT PILOT	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size A Third Party Funding, Size A Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate	Year 1 S S S Year 1 S S Year 1 S S Year 1 S Year 1 S Year 1	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$ 116 \$ 116 \$ Year 2 - \$ - \$ - \$ - \$ - \$	Greduced each t	ren-E or other cost for property for the	Year 4  18 18 18 18 Year 4  Year 4  Year 4	Year 5 \$ 11 \$ 11  Year 5 \$	USD (Nominal) Cost Unit: 9 per participant 9 per participant 9 per participant USD (Nominal) Cost Unit: per participant per participant USD (Nominal) Cost Unit: per participant USD (Nominal) Cost Unit: per participant per participant per participant per participant per participant USD (Nominal) Cost Unit:	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the supfront costs to participants who participants in this pilot. This is a calculated value where utility incentives are subtracted from the total upfront project costs. Direct Perticipant Riod costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note 1 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT COSTS	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size A	Year 1 \$ \$ Year 1 \$ \$ \$  Year 1 \$ \$  Year 1  Year 1  Year 1	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$ 116 \$ Year 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Greduced each t	Year 3	Year 4  3.82%	Year 5 \$ 11 \$ 11 \$ 11 \$ 12 Year 5 \$ - \$ - \$ - Year 5 \$ 5 \$ - \$ 3.82	USD (Nominal) Cost Unit:  9 per participant 9 per participant 9 per participant 9 per participant USD (Nominal) Cost Unit: 9 per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note 1 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size A	Year 1 \$ \$ Year 1 \$ \$ \$  Year 1 \$ \$  Year 1 \$  Year 1  Year 1	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$ 116 \$ Year 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Greduced each t	Year 3	Year 4  3.82%	Year 5 \$ 11 \$ 11 \$ 11 \$ 12 Year 5 \$ - \$ - \$ - Year 5 \$ 5 \$ - \$ 3.82	USD (Nominal) Cost Unit:  9 per participant 1 USD (Nominal) Cost Unit: 1 per participant 2 per participant 3 (for each pilot analysis year) 1 USD (Nominal) Cost Unit: 1 per participant per year of pilot life	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NCIN evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NCIA evaluation criteria. Note 1 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT COSTS	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B	Year 1 S S S Year 1 S S S Year 1 S S Year 1 S S S Year 1	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$1,500 One time upfr	Greduced each t	Year 3  Year 3  118   \$ 118   \$ 118   \$ 118   \$ 118   \$ 118   \$ 128   \$ 138   \$ 148   \$ 158   \$ 158   \$ 168	Year 4  Year 4  18  18  Year 4	Year5 \$ 11 \$ 11  Year5 \$ - \$ - \$ -  Year5 \$ - \$ -  Year5 \$ -  Year5 \$ -  **S -	USD (Nominal) Cost Unit:  9 per participant  9 per participant  9 per participant  USD (Nominal) Cost Unit: per participant  USD (Nominal) Cost Unit: per participant  USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant per year of pillot life per participant per year of pillot life per participant per year of pillot life	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NCIN evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NCIA evaluation criteria. Note 1 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size C Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:	Year 1 S S Year 1 Year 1 Year 1 S Year 1 Year 1	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$1,500 One time upfr	Greduced each t	Year 3	Year 4  3.82%	Year 5 \$ 11 \$ 11 \$ 11 \$ 11 \$ 12 Year 5 \$ - \$ - \$ 3.82 Year 5 \$ - Year 5	USD (Nominal) Cost Unit:  9 per participant  9 per participant  9 per participant  9 per participant  1 per participant  2 per participant  2 per participant  3 (for each pilot analysis year)  1 USD (Nominal) Cost Unit:  1 per participant per year of pilot life	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note 2 some pilots taking a Direct Install approach may see the utility covering all costs with outfront financial contribution from the participant.  For an escalation rate, we use the everage of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B	Year 1 S S Year 1 Year 1 Year 1 S Year 1 Year 1	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$1,500 One time upfr	Great   Grea	Year 3	Year 4	Year 5 \$ 11 \$ 11 \$ 11 \$ 11 \$ 12 Year 5 \$ - \$ - \$ 3.82 Year 5 \$ - Year 5	USD (Nominal) Cost Unit:  9 per participant  9 per participant  9 per participant  USD (Nominal) Cost Unit: per participant  USD (Nominal) Cost Unit: per participant  USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant per year of pillot life per participant per year of pillot life per participant per year of pillot life	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIM evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIM evaluation criteria. Note 1 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size C Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:	Year 1 S S S Year 1 S S S Year 1 S S S Year 1 Year 1 Year 1 S S Year 1 Year 1	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$35,000 \$/year Year 2 116 \$ 116 \$ 116 \$ Year 2 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Great   Grea	Year 3	Year 4  Year 4	Year 5 \$ 11 \$ 11 \$ 11 \$ 11 \$ 12 \$ 12 \$ 14 \$ 15 \$ 15 \$ 17 \$ 17 \$ 17 \$ 17 \$ 17 \$ 17 \$ 17 \$ 17	USD (Nominal) Cost Unit:  9 per participant  9 per participant  9 per participant  USD (Nominal) Cost Unit: per participant  USD (Nominal) Cost Unit: per participant per participant  USD (Nominal) Cost Unit: per participant per participant  USD (Nominal) Cost Unit: per participant per year of pilot life	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It is some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs.  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation  Escalation rate  Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A	Year 1 S S Year 1 Year 1 Year 1 S Year 1 Year 1	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$1,500 One time upfr	Great   Grea	Year 3	Year 4	Year 5 \$ 11 \$ 11 \$ 11 \$ 11 \$ 12 Year 5 \$ - \$ - \$ 3.82 Year 5 \$ - Year 5	USD (Nominal) Cost Unit:  3 per participant  3 per participant  4 per participant  5 per participant  6 per participant  7 per participant  8 per participant  9 per participant per year of pilot life  9 per participant per year of pilot life  9 per participant per year of pilot life  9 (I or each pilot analysis year)  USD (Nominal) Cost Unit:  9 per participant per year of pilot life  10 year of pilot analysis year)	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It is some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
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PARTICIPANT NON- ENERGY COSTS	M-RETS RTC On-going Registration Costs:  M-RETS RTC Upfront Registration Costs:  M-RETS RTC Upfront Registration Costs:  Project Verification Costs.  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation  Escalation rate  Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A	Year 1 S S S Year 1 S S S Year 1 S S S Year 1 Year 1 Year 1 S S Year 1 Year 1	\$0.05 \$/Dth, for all Dth \$1,500 One time upfron \$1,500 One time upfr	Great   Grea	Year 3	Year 4  Year 4	Year 5 \$ 11 \$ 11 \$ 11 \$ 11 \$ 12 \$ 12 \$ 14 \$ 15 \$ 15 \$ 17 \$ 17 \$ 17 \$ 17 \$ 17 \$ 17 \$ 17 \$ 17	USD (Nominal) Cost Unit:  3 per participant  3 per participant  4 per participant  5 per participant  6 per participant  7 per participant  8 per participant  9 per participant per year of pilot life  9 per participant per year of pilot life  9 per participant per year of pilot life  9 (I or each pilot analysis year)  USD (Nominal) Cost Unit:  9 per participant per year of pilot life  10 year of pilot analysis year)	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g., IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note 1 some pilots taking a 'Direct Install approach may see the utility covering all costs, with or upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each
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	Average Lifetime for Savings/Pilot Tech, Size A		10 years					
	Average Lifetime for Savings/Pilot Tech, Size B		10 years					
	Average Lifetime for Savings/Pilot Tech, Size C		10 years					
PILOT LIFE								
	Calculations & Other Explanation:							
	Avg. Dth/Participant Saved, Size A		O Dth/Participant					
NATURAL GAS ENERGY SAVINGS:	Avg. Dth/Participant Saved, Size B		O Dth/Participant					
AVG. Dth/	Avg. Dth/Participant Saved, Size C		O Dth/Participant					
PARTICIPANT	Calculations & Other Explanation:	Changes in natural gas consumption for RN	C nead sation are already factor	red into Carbon Intensity	through CDEET coloulation	o (ausidiaa daub)	a counting them have)	
SAVED	Saledations & Street Explanations	Changes in natural gas consumption for Riv	a production are already facto	ored into Carbon intensity	through GREET Calculation	s (avoiding double	counting them here).	
	Avg. Non-Gas Fuel Units/Part. Saved, Size A		0 kWh/Participant				Saved will be used in the Participant Cost tests for	
	Avg. Non-Gas Fuel Units/Part. Saved, Size B		0 kWh/Participant	Units are kwn; could techn	ically be other non-NG. Avg. Nor	-Gas ruei Units/Part. 3	saved will be used in the Participant Cost tests for	the NGIA evaluation criteria.
	Avg. Non-Gas Fuel Units/Part. Saved, Size C		0 kWh/Participant					
AVG. NON-GAS	Avg. Additional Non-Gas Fuel Units/Part.Used, Size A		0 kWh/Participant	Avg. Additional Non-Gas F	uel Units/Part. Used will be used	in the Participant Cos	t tests for the NGIA evaluation criteria.	
FUEL UNITS/ PART.	Avg. Additional Non-Gas Fuel Units/Part.Used, Size B		0 kWh/Participant					
	Avg. Additional Non-Gas Fuel Units/Part.Used, Size C		0 kWh/Participant					
	Calculations & Other Explanation:	Changes in electricity consumption for RNO	production are already factor	red into Carbon Intensity t	hrough GREET calculations	(avoiding double	counting them here).	
	Grid Mix Scenario	NREL		Select one of the listed grid	d mix scenarios taking into acco	unt that:		
GRID MIX		•		•Dtilities shall use electric-	utility-specific generation mix in	formation for the rene	wable natural gas facility when it is reasonably avai	lable. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from National
SCENARIO				Donawahla Enarmi I aharat	and AIDET I Chandred Carnadan I	I the recorded nature	I ann fanility in coins a bishay avanaution of anchan	ten alasticity than is available by default from their electric utility aither from an alte assertion by exhabition to a Commission assertion
	Calculations & Other Explanation:							
	This section does not apply to all pilot types. The CUC aboves from does		tion will be extended become	an unhua ahawa Hawaya	v for vilate where NCIA ve	aujus lifesus la d	NIC assisse (a.s. DNC budgeses assber	capture) this section accounts for the lifecycle change in GHG emissions (per unit of participation).
	This section does not apply to all pliot types. The drid changes from decrea	ased natural gas and/or electricity consump	tion will be calculated based (	on values above. Howeve	r, for pilots where NGIA re	quires illecycle d	and savings (e.g. KNG, nydrogen, carbon	capture) this section accounts for the inecycle change in and emissions (per unit or participation).
	Lifecycle GHG Intensity Savings, Size A	Year 1	Year 2	Year 3	Year 4	Year 5		
	Low						kg CO2e/participant	Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGIA) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and
	Expected High		53.35 53	3.35 53.35	5 53.35	53.35	kg CO2e/participant kg CO2e/participant	other fuels used in the resource's lifecycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations and when
	·		*		+			determining the expected greenhouse gas reduction of pilot programs and NGIA plans.
	Lifecycle GHG Intensity Savings, Size B	Year 1	Year 2	Year 3	Year 4	Year 5	kg CO2e/participant	
	Expected		53.35 53	3.35 53.35	5 53.35	53.3	kg CO2e/participant	
	High					L	kg CO2e/participant	
	Lifecycle GHG Intensity Savings, Size C	Year 1	Year 2	Year 3	Year 4	Year 5		
	Low Expected		F0.05	500	5005	500	kg CO2e/participant	
	High		53.35	5.35	53.35	53.35	kg CO2e/participant kg CO2e/participant	
	o a constant of the constant o	For RNG pilots (where the units of participation are E	Oth of	+	+	-		
LIFECYCLE GHG INTENSITY BY		RNG purchased) the above values represent the lifed emission reduction achieved per Dth of RNG purchase						
PROJECT SIZE		(calculated as the difference between the carbon into score calculated from GREET for this pilot, vs. the GR	ensity					
		emission factor for geologic natural gas combustion;						
	Calculations & Other Explanation:							
	·		GHG Intensity		These values represent the ca	rbon intensity for this	project/archetype, as calculated by ICF using GREI	ET. Some default assumptions from GREET have been updated to better reflect typical expectations for RNG projects in Minnesota (e.g. GHG intensity
		Size A	Size B kg CO2e/Dth	Size C			ver on-site vs. grid electricity, etc.	
	Low Scenario		kg CO2e/Dill		Note that carbon intensities w	ill vary by project, and	I GREET calculations will be required for specific pr	ojects as they are chosen (based on assumed project designs, and later updated for actual operating conditions).
	Expected Scenario		13	13 13	Also note that GREET's rules for	or carbon accounting (	which NGIA legislation requires CenterPoint to follo	w) differ from California's Low-Carbon Fuel Standard (LCFS) in a number of areas, meaning that these scores can look quite different than California
	High Scenario				LCFS Carbon Intensity scores.			
		kg CO2e/Dth						
	Default Geologic Gas Emissions Factor		66.14					
			2024-2028 period, usi	ng 2029-2033 period,	2034-2038 period,			
	RNG GHG factor, updated for grid mix factors 2025, 2030, and 2035	Pilot Lifetime Average	2025 grid mix	using 2030 grid mix	using 2035 grid mix			
	kg CO2e/Dth		12.79	5.18 11.23	2 11.11			
OTHER PILOT-SPEC	FIC PARAMETERS (formerly 'General Parameters' in CIP Calculator):							
	Peak Reduction Factor		1% The estimated average annua	al effect of the project on syster	n peak. It is estimated to be 1% I	or energy efficiency p	ilots. The method for other innovative resources sh	ould be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the Utility Cost and Non Participant Cost tests
PEAK REDUCTION	Outside the action of Other Fredericks		for the NGIA evaluation criter	ria.				
FACTOR	Calculations & Other Explanation:							
		Values now linked directly back to planning assum Year 1	otions tab (possible given the combin Year 2	nation of formerly separate Exl Year 3	hibits P and N into a single file) Year 4	Year 5	USD (Nominal) Cost Unit:	
	Variable O&M Cost, Applies to all project sizes	s tear 1		Year 3 04 \$ 0.04	s 0.04	\$ 0.04		The CIP methodology is used for energy efficiency. However, the value for other innovative resources should be considered in the context of
VARIABLE O&M			0.0	0.04	0.04	. 0.04	p	specific utility proposals. For example, resources like power-to-hydrogen and RNG may not decrease O&M costs as they also need to be
								transported to customers on the distribution system. Variable OSM will be used in the Utility Cost and Non Participant Cost tests for the NGIA
	Calculations & Other Explanation:	Year 1	Year 2	Year 3	Year 4	Year 5	(for each pilot and!	transported to customers on the distribution system. Variable O&M will be used in the Utility Cost and Non Participant Cost tests for the NGIA evaluation criteria.
	<u>Calculations &amp; Other Explanation:</u> Escalation rat		Year 2 -5.25			Year 5 -5.250%	(for each pilot analysis year)	transported to customers on the distribution system. Variable O&M will be used in the Utility Cost and Non Participant Cost tests for the NGIA

NON-GAS FUEL COST	Non-Gas (i.e., Electric) Fuel Cost <u>Calculations &amp; Other Explanation</u> :	USD (Nominal) Cost Unit \$ 44.14 per MWh	The CIP methodology is used for all resources other ti	han strategic electrification. The method for strategic electrification should be cational marginal prices (LMP) at the Minnesota Hub from January 1, 2022 to E	considered in the context of specific utility pilot proposals. sceember 31, 2022 using data from Midwest Independent System Operator (MISO)
NON-GAS FUEL LOSS FACTOR	Non-Gas Fuel Loss Factor  Calculations & Other Explanation:	8.22%	The CP methodology is used for all resources other the reported by Minnesota Power, Xcel Energy, and Otter	han strategic electrification. The method for strategic electrification should be Tall Power's reported 2021 transmission and distribution loss factors and wel	considered in the cortext of specific utility pilot proposals. In the most recent CIP, Staff used the weighted average of the most recent loss factor phing by the utilities' 2017-2019 average retail sales
OTHER QUANTITATI	VE CRITERIA:				
OTHER NON-GHG POLLUTANTS	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations & Other Explanation:	USD Cost Unit:  \$ 0.37 per Dth  \$ 0.37 per Dth  \$ 0.37 per Dth	Commission's approved dollar per ton environmental populations. For example, an energy efficiency project	cost values using escalation rate to adjust by observed inflation between 201- t that targets an urban area might use the urban value rather than the metropo justification for the change. Instead of requiring the use of median metropolitan	ta Public Utilities Commission (Commission). The factors are reported in 2021 dollars in Table 2 below, which were calculated by inflating the and 2021 Stateholders expressed a preference for allowing utilities to select different externally values for pibls targeting specific geographies. For all the properties of t
	Net Direct Job Creation, Size A Net Direct Job Creation, Size B Net Direct Job Creation, Size C	Year 1	Year 3 Year 4 4 4 4 17 17 17 35 34	Year 5         Total during 5 program years           4         4           17         17           34         33	Remainder of project life  18 27 # of jobs Utilities should consider both jobs created by proposed pilots and jobs may be eliminated by proposed pilots.  18 240 # of jobs  19 40 # of jobs
	Net Indirect Job Creation, Size A Net Indirect Job Creation, Size B Net Indirect Job Creation, Size C	Year 1	Year 3 Year 4 2 2 9 9 9 19 18	Year 5 Total during 5 program years 2 2 9 9 9 18 18 18	Remainder of project life 9
NET JOB CREATION	Net Induced Job Creation, Size A Net Induced Job Creation, Size A Net Induced Job Creation, Size A	Year 1	Year 3 Year 4 3 2 11 11 11 21 21 21 21 21 21 21 21 21 2	Year 5   Total during 5 program years	Remainder of project life   18 # of jobs   142   75 # of jobs   148   40 f jobs
	<u>Calculations &amp; Other Explanation</u> :  Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.				
PUBLIC CO- BENEFITS	Public Co-Benefits, Size A Public Co-Benefits, Size B Public Co-Benefits, Size C Calculations & Other Explanation:	Year1 Year2  S - S -  S - S -  S - S -  S - S -	Year3 Year4	Year 5	Quantifiable in some cases. If this metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative Considerations section below.
WATER POLLUTION	Water Pollution, Size A Water Pollution, Size B Water Pollution, Size C Calculations & Other Explanation:	Year 1   Year 2     \$   -   \$   -   \$     \$   -   \$   -     \$   -   \$   -     \$   -   \$   -	Year 3 Year 4 - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 5	The legislation left the door open to quartify any costs and benefits on water pollution. This might be quartifiable for some of the projects.  The legislation left the door open to quartify any costs and benefits on water pollution. This might be quartifiable for some of the projects.  The legislation left the door open to quartify any costs and benefits on water pollution. This might be quartifiable for some of the projects.  The legislation left the door open to quartify any costs and benefits on water pollution. This might be quartifiable for some of the projects.  The legislation left the door open to quartify any costs and benefits on water pollution. This might be quartifiable for some of the projects.
ADDITIONAL OUALIT	FATIVE CONSIDERATIONS:				
NGIA Utility Perspective Notes: Definition:	It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and CIP quantification methods.				

It is expected that many of the elements of the participant perspective, with respect to the direct effect of pilots, will be quantifiable. For example, increased comfort in a home and health benefits from pilots that improve indoor air quality are two examples of benefits that may be difficult to quantify.

NGIA Participants'
Perspective Notes:
Definition:

GIA onparticipating ustomers' erspective Notes:	
ustomers' erspective Notes:	
	As with the utility perspective, the direct effects of pilot programs on non- varticipating customers should be quantified in most cases and can be heavily
efinition:	nformed by structural values.
	Provides widespread benefits to all sales customers
fects on Other nergy Systems	
nd Energy ocurity: efinition:	
efinition:	IGIA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utility and its customers. Measures like strategic electrification specifically require gas utilities and the Commission to avoid negative effects on the electric system. Further, the
	IGIA empowers the Commission to consider a wide variety of "costs and benefits that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel markets.
	Company will give preference to fuel made in MN that will reduce import from outside of MN
HG Emissions	
otes:	In innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion
	of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.
de en Bellevillen	
ther Pollution otes: efinition:	
	nclude any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.
aste Reduction nd Reuse Notes:	
	Vaste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes eduction of water use.
licy Notes:	
	IGIA is intended to help the state achieve certain environmental policy goals necluding geologic gas throughput reduction and increased use of renewable
efinition:	esources.  Reduces fossil gas throughput
et Job Creation otes:	
	In innovation plan must include, as applicable, "projected local job impacts
	esulting from implementation of the plan." Utilities should consider both jobs reated by proposed pilots and jobs that may be eliminated by proposed pilots.
onomic evelopment	
evelopment otes: efinition:	The Commission and and a failurable the investor had a commission of the instance of the insta
ennicon.	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.
blic Co-Benefits otes:	
otes: efinition:	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.
arket	
evelopment otes: ofinition:	
efinition:	The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are realized

## Direct Innovation Support Notes: Definition:

are intended to lead to future opportunities.

Opportunity for Company to learn about purchasing RNG

Resource Scalability and Role in a Decarbonized System Notes:

While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnestora's GHZ reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.

Realistic pathways to decarbonization include RNG

CF	CNPO7 - Green Hydrogen Blending into Natural Gas Distribution System	Click here to go back to the list of all pilots  March 15th 2024 Update: The pilot cost assump	ptions have been updated to factor	in a conservative expec	tation of the IRA's	s PTC funding, in	NGIA Pilot Profiles Workbook place of the ITC, based on draft guidance	e for the PTC.	
	Pilot Project Code:	CNP07							
	Pilot Project Name:	Green Hydrogen Blending into Natural Gas Distrib	oution System						
	Customer Class/ Sector: Low-Income Community Benefit?	C&I & Res	_						
	Target Area:	Territory-wide	_						
	Primary Innovative Resource Category:	Power-to-Hydrogen	Select primary Innovation Category	. Others can be listed her	e:				
	Pilot Description:								
	CenterPoint Energy proposes to own and operate a 1 megawatt ("MW") green	hydrogen plant at an existing Company facility in Ma	ankato, Minnesota.						
DESCRIPTION									
	Overview of Program/ Implementation Approach:								
	CenterPoint Energy would own all components of installed system, including e	electrolyzer and PV systems. Estimated timeline for s	system design, planning and installation	on would be approximate	ly 2 years. This rep	presents a next p	hase in CenterPoint Energy's hydrogen pro	oduction work, gaining experience using dedicated	
	renewables to produce hydrogen and in turn drive down the costs of the blen	nding projects.							
	Other Comments / Information:								
	Size A assumes no grid electricity used to supplement dedicated solar power	input.							
	Size B assumes grid electricity to power the electrolyzer when solar PV is not	generating power.							
	May still add a pilot size C to test using battery storage with increased solar F Some important details on IRA funding, and whether or not grid electricity car		zer at higher capacity factor than Siz	e A (without, or with less	grid electricity pu	rchases).			
Y PILOT-SPECIFIC	INPUTS:								
	Pilot Year	Year 1	Year 2	Year 3	Year 4	Year 5	_		
	Calendar Year Participating Units, Size A	2024	4 2025	2026	2027	202	Incremental units added, annual (not cumulative),		
	Participating Units, Size B		0	1	0	(	)		
	Participating Units, Size C	= Capacity of Electrolyzer (MW)	0	0	0	(	<u> </u>		
NUMBER OF PARTICIPANTS	Calculations & Other Explanation:	= Capacity of Electrolyzer (MW)							
	· ·	W	V 8	V	v	V	Note:		
	Cumulative Electrolyzer Capacity Installed (MW), Size	Year 1	Year 2	Year 3	Year 4	Year 5		to supplement dedicated solar power input.	
	Cumulative Electrolyzer Capacity Installed (MW), Size	e B -	-	1	1			the electrolyzer when solar PV is not generating power.	
	Cumulative Electrolyzer Capacity Installed (MW), Size	- A	-	-	-	-			
	Annual Total Utility Incremental Cost, Size A	Year 1 49,800	Year 2 \$ 150,094 \$	Year 3 \$ 599.157   \$	Year 4 792,765	Year 5 \$ 746.583	USD (Nominal) Cost Unit: total cost per year	These incremental utility costs are what will count against the NGIA	budget cap for this measure and will be used in the Utility Cost, and No
	Annual Total Utility Incremental Cost, Size B	\$ 49,800	\$ 150,094	\$ 1,337,378 \$	1,342,564	\$ 1,673,226	total cost per year	Participant Cost tests for the NGIA evaluation criteria. This is the su	m of utility admin costs to run pilot, any incentive funding to support pr
	Annual Total Utility Incremental Cost, Size C	-	\$ -	\$ - \$	-	\$ -	total cost per year	deployment, and/or the utility's annual revenue requirement for cap	ital investments made on select pilots.
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		
	Fixed O&M Cost, Size A Fixed O&M Cost, Size B	\$ 49,800 \$ 49,800	\$ 150,094 S	\$ 139,916 \$ \$ 878,137 \$	61,622 611,420	\$ 61,943 \$ 988.587	total cost per year total cost per year	Fixed O&M Cost is the result of adding up Total Project Delivery, Ad Workforce Development of Market Transformation Cost	lvertising and Promotions, Utility Administration, Trade Ally Incentives, ar
	Fixed O&M Cost, Size C	\$ -	\$ - :	\$ - \$	- :	\$ -	total cost per year	·	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		
	Total Project Delivery, Size A	\$ 49,800			155,709	\$ 156,030	per year	Total internal and external project delivery	
	Total Project Delivery, Size B	\$ 49,800	\$ 150,094	\$ 187,955 \$	156,767	\$ 157,088	per year		
	Total Project Delivery, Size C	5 -	5 - ;	- 5	-	-	per year		
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		
	Internal Project Delivery, Size A Internal Project Delivery, Size B	\$ 9,800 \$ 9,800	\$ 10,094 S		10,709	\$ 11,030 \$ 11.030	per year per year	CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost"	ategory above.
	Internal Project Delivery, Size C	\$ -	\$ - :	\$ - \$	- :	\$ -	per year		
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		
	External Project Delivery, Size A	\$ 40,000	\$ 140,000		145,000				reimburses the vendor. These costs are sub-set of the Utility "Fixed O&N
	External Project Delivery, Size B	\$ 40,000		\$ 177,558 \$	146,058	\$ 146,058	per year	Cost" category above.	
	External Project Delivery, Size C	-	\$ - :	\$ - \$ March 15th Update: Updat	ed costs above fa	-	per year		
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	<del></del>	
	Advertising and Promotions, Size A Advertising and Promotions, Size B	\$ -	\$ - :	\$ - \$ \$ - \$	- :	\$ -	per year per year	These costs are sub-set of the Utility "Fixed O&M Cost" category a	pove.
	Advertising and Promotions, Size C	\$ -	\$ - :	\$ - \$	- :	\$ -	per year		
		W4	V 0	Year 3	Year 4	VP	USD (Nominal) Cost Unit:	<del></del>	
	Allocation of General Portfolio Costs. Size A	Year 1	Year 2 - !	s - \$	Tear 4	Year 5	per year	Share of portfolio level costs, including plan development costs, reg	ulatory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size B	\$ -	\$ - :	\$ - \$	- :	\$ -	per year		
	Allocation of General Portfolio Costs, Size C	<b>&gt;</b> -	- :	- \$	-	-	per year		
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		
	Trade Ally Incentives, Size A Trade Ally Incentives. Size B	\$ -	\$ - :	\$ - \$	- :	\$ -	per year per year	If applicable, include here the annual amount of trade ally incentive	(e.g. midstream program)
	Trade Ally Incentives, Size B Trade Ally Incentives, Size C	\$ -	\$ -	\$ - \$	- :	\$ -	per year		
		Year 1	Year 2	V2	V4	V F	USD (Nominal) Cost Unit:		
	Workforce Development or Market Transformation Cost, Size A		Year 2 - !	Year 3 - \$	Year 4	Year 5	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category a	pove.
	Workforce Development or Market Transformation Cost, Size B	\$ -	\$ - !	\$ - \$	- :	\$ -	per year		
UTILITY PILOT	Workforce Development or Market Transformation Cost, Size C	\$ -	\$ - ;	- \$	- :	\$ -	per year		

COSTS	1	1-4	Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Other Fixed O&M Cost, Size A	\$		- \$	-	\$ (46,981) \$ 690,182	\$ (94,087) \$	\$ (94,087 \$ 831,499	) per year	Increased electricity costs for renewable power purchases for the electrolyzer and increased water costs. Electricity costs were included directly here because they expect to use a green tarif program to procur renewable electricity, while the default areas to
	Other Fixed O&M Cost, Size B Other Fixed O&M Cost, Size C	\$		- \$	-	*	,		per year per year	enter increased electricity consumption below would automatically apply higher GHG emission factors for power generation.
			Year 1		Year 2	March 15th Update: Upd Year 3	dated costs above fa Year 4	ctor in expected Year 5	d revenue from PTC. USD (Nominal) Cost Unit:	
	Total utility capital investment, Size A	\$		- \$	-	\$ 4,340,000 \$ 4,340,000	\$ - 5	-	per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital
	Total utility capital investment, Size B Total utility capital investment, Size C	\$		- \$	-	\$ 4,340,000	\$ - 5	<u> </u>	per year per year	investments (shown below).
	, , , , , , , , , , , , , , , , , , , ,			•					capital investments using PTC for hydrogen	investments (upfront capital investment only reduced by ITC for solar PV)
	Est. Annual Revenue Requirement for Capital Projects, Size A	\$	Year 1	- \$	Year 2	Year 3 \$ 459,241	Year 4 \$ 731,143 \$	Year 5 684,640	USD (Nominal) Cost Unit: per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as
	Est. Annual Revenue Requirement for Capital Projects, Size B	\$		- \$	-	\$ 459,241	\$ 731,143 \$		per year	well as the utility 'Fixed O&M Costs' captured above. This revenue requirement is calculated from the magnitude & timing of capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
	Est. Annual Revenue Requirement for Capital Projects, Size C	\$		- \$	-		\$ - \\$ dated annual revenue		per year ctors in updated capital investments using F	PTC for hydrogen investments (upfront capital investment only reduced by ITC for solar PV)
	Est. Total Revenue Requirement for Capital Projects. Size A		Total	USD (Nomina	l) Cost Unit:					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected
	Est. Total Revenue Requirement for Capital Projects, Size A  Est. Total Revenue Requirement for Capital Projects, Size B	\$		8,172,579 total cost 8,172,579 total cost						measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to
	Est. Total Revenue Requirement for Capital Projects, Size C	\$		- total cost						calculate any of the NGIA evaluation criteria.
		Marc	n 15th Update: Updated total reve Year 1		in updated capital in Year 2	vestments using PTC for Year 3	r hydrogen investme Year 4	nts (upfront car Year 5	ustal investment only reduced by ITC for sola USD (Nominal) Cost Unit:	rPV)
	Incentives, Size A Incentives, Size B	\$		- \$	-	\$ -	\$ - \$	-	per year per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc). Do not include here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct
	Incentives, Size B	\$		- \$	-	\$ -	\$ - 5	-	per year per year	install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will be used in the Participant Cost tests for the NGIA evaluation criteria.
			V4		Year 2	V0	V	Year 5	USD (Nominal) Cost Unit:	ATHE IREA IN THE PARTICIDANY COST PRINK INT THE IN MAD INVARIANT CHIPMA
	Incentives per Participant, Size A		Year 1 #DIV/O!			Year 3	Year 4 #DIV/O!	#DIV/O!	per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size B		#DIV/0! #DIV/0!		#DIV/0! #DIV/0!	\$ - #DIV/O!	#DIV/0! #DIV/0!	#DIV/0! #DIV/0!	per participant per year	
	Incentives per Participant, Size C		#DIV/U!	Ŧ	≠DIV/O!	#DIV/U!	#510/0!	#DIV/U!	per participant per year	<u></u>
	Calculations & Other Explanation:	Capitals	costs for electrolyzer (1 MW) an	nd Solar PV: \$	5,000,000					
	External Delivery O&M Estimate Detail - 1		Year 1		Year 2	Year 3	Year 4	Year 5	Remaing Years of Equipment Life	<del>-</del>
	Te	echnical Support: Contract Labor:		\$40,000 \$0	\$40,000 \$50,000	\$40,000 \$50,000	\$10,000 \$50,000	\$10,000 \$50,000		
		Materials/Parts:		\$0	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	
		Utilities: Formal M&V:		\$0 \$0	\$25,000 \$0	\$25,000 \$0	\$25,000 \$0	\$25,000 \$0		DElectricity purchased here to be from renewable sources, acquired through green tariff program.
	M-RETS Generator Registration Fee (One Time, yea			\$1,500						
		egistration Costs: st for Whole Pilot: N/A		\$0.05 \$/Dth						
						March 15th Undate: The	PTC will require ann	ual verification o	f project GHG intensity (through GREET) so	annual project verification costs have been added to this pilot, but the total pilot M&V has been removed
	Project V	/erification Costs:		\$35,000 \$/year		March 15th Update: The Green-E or other cost fo			f project GHG intensity (through GREET) so	annual project verification costs have been added to this pilot, but the total pilot M&V has been removed.
	Project Vo	Verification Costs:	Year 1	,		Green-E or other cost for	or project verificatio	n		annual project verification costs have been added to this pilot, but the total pilot M&V has been removed.
	Total Pilot Upfront Costs, Size A	Perification Costs:	Year 1	,	Year 2	Year 3 \$ 8,172,579			USD (Nominal) Cost Unit: per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital
	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B	/erification Costs:	Year 1	,	Year 2	Green-E or other cost for Year 3	or project verificatio	n	USD (Nominal) Cost Unit:  per participant  per participant	
	Total Pilot Upfront Costs, Size A	/erification Costs:			Year 2	Year 3 \$ 8,172,579 \$ 8,172,579	or project verification Year 4	n Year 5	USD (Nominal) Cost Unit:  per participant  per participant  per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor
	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C	Perification Costs:	Year 1 Year 1		Year 2	Year 3 \$ 8,172,579 \$ 8,172,579  Year 3	Year 4 Year 4	Year 5	USD (Nominal) Cost Unit:  per participant  per participant  per participant  USD (Nominal) Cost Unit:	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size A	Ferification Costs:			Year 2 Year 2	Year 3 \$ 8,172,579 \$ 8,172,579  Year 3	Year 4  Year 4  Year 4  \$ 94,211	Year 5 Year 5 94,211	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant per perticipant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor
	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B	/erification Costs:	Year 1	- \$ - \$ - \$	Year 2  Year 2	Year 3   S   172,579   S   8,172,579   S   8,172,579   S   707,106   S   895,528   S   -	Year 4  Year 4  Year 4  Year 4	Year 5 Year 5 94,211	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. RA, etc.) account for those values here. This funding is noted here for reference, it's
	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size A	/erification Costs:	Year 1 ITC tax credit, taken as 30% of up	- \$ - \$ - \$ pfront capital costs (for be	Year 2 Year 2	Year 3   \$ 8,172,579     \$ 8,172,579     \$ 8,172,579     Year 3   \$ 707,106     \$ 895,528     \$ \$ , 707,106     \$ 895,528     \$ \$ , 707,106     \$ 895,528     \$ \$ , 707,106     \$ 895,528     \$ \$ , 707,106     \$ 895,528     \$ \$ , 707,106     \$ 895,528     \$ \$ , 707,106     \$ 895,528     \$ \$ , 707,106     \$ 895,528     \$ \$ , 707,106     \$ 895,528     \$ \$ , 707,106     \$ 895,528     \$ \$ , 707,106     \$ 895,528     \$ 895,528     \$ 895,528     \$ \$ , 707,106     \$ 895,528     \$	Year 4  Year 4  \$ 94,211	Year 5  Year 5  94,211  94,211  94,211	USD (Nominal) Cost Unit:  per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. RA, etc.) account for those values here. This funding is noted here for reference, it's
	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B	/erification Costs:	Year 1	- \$ - \$ - \$ pfront capital costs (for be	Year 2  Year 2	Year 3 \$ 8,172,579 \$ 8,172,579 \$ 8,172,579  Year 3 \$ 707,106 \$ 895,528 \$	Year 4  Year 4  Year 4  Year 4	Year 5 Year 5 94,211	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. RA, etc.) account for those values here. This funding is noted here for reference, it's
OTAL AND DIRECT	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A	/erification Costs:	Year 1 ITC tax credit, taken as 30% of up	- \$ - \$ - \$ pfront capital costs (for be	Year 2 Year 2	Year 3 \$ 8,172,579 \$ 8,172,579 \$ 8,172,579  Year 3 \$ 707,106 \$ 895,528 \$	Year 4  Year 4  \$ 94,211	Year 5  Year 5  94,211  94,211  94,211	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A	/erification Costs:	Year 1 ITC tax credit, taken as 30% of up	- \$ - \$ - \$ pfront capital costs (for be	Year 2 Year 2	Year 3 \$ 8,172,579 \$ 8,172,579 \$ 8,172,579  Year 3 \$ 707,106 \$ 895,528 \$	Year 4  Year 4  \$ 94,211	Year 5  Year 5  94,211  94,211  94,211	USD (Nominal) Cost Unit:  per participant Der participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor molude utility program admin costs.  If there are expectations for external funding sources (e.g. RPA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NQIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted.
RTICIPANT PILOT	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A	S S S IRA's	Year 1 ITC tax credit, taken as 30% of up	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  Year 2	Year 3   S   C   C   C   C   C   C   C   C   C	Year 4  \$ 94.211 \$ 3 471.057 \$ \$ \$ - \$ \$ \$ - \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$	Year 5  Year 5  94,21  Year 5  94,21  Year 5  -  Year 5	USD (Nominal) Cost Unit:  per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost sets for the NGIA evaluation criteria. Note a some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
RTICIPANT PILOT	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C	/erification Costs:	Year 1 ITC tax credit, taken as 30% of up Year 1	-   \$   -   \$   \$   \$   \$   \$   \$   \$	Year 2  Year 2	Year 3   S   C   C   C   C   C   C   C   C   C	Year 4  \$ 94.211 \$ 3 471.057 \$ \$ \$ - \$ \$ \$ - \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$	Year 5  Year 5  94,21  Year 5  94,21  Year 5  -  Year 5	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  IRA max credit value as \$3/kg H2 feasible when the hydrogen p	S   S   RA's   S   S   S   S   S   S   S   S   S	Year 1  ITC tax credit, taken as 30% of up  Year 1  Year 1	- \$ - \$ pfront capital costs (for bit of the cost) - \$ - \$ - \$ - \$ 3.82%	Year 2  Year 2  Oth solar and electrol Year 2  Year 2  382% ase for this on-site s	Year 3   Year 3	Year 4  Year 4  \$ 94,211   \$ 471,057   \$ 1.057	Year 5  Year 5  \$ 94,21  \$ 94,21  Year 5  \$  Year 5  \$  Year 5  \$  Year 5  \$  Year 5	USD (Nominal) Cost Unit: per participant per participant USD (Nominal) Cost Unit: per participant  USD (Nominal) Cost Unit: per participant per participant per participant per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note I some pilots taking a 'Direct hatal' approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage charge in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  IRA max credit value as \$3/kg H2 feasible when the hydrogen p	S S S RAAs	Year 1  ITC tax credit, taken as 30% of up  Year 1  Year 1	- \$ - \$ pfront capital costs (for bit - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	Year 2  Year 2  Oth solar and electrol Year 2  Year 2  3.82%  3.82%	Year 3   Y	Year 4  \$ 94,211   \$ 471,057   \$ \$ - \$ \$ \$ - \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$	Year 5  \$ 94.21  Year 5  \$ 94.21  Year 5  \$ -  Year 5  A 8.22  A 8.	USD (Nominal) Cost Unit: per participant per participant USD (Nominal) Cost Unit: per participant  USD (Nominal) Cost Unit: per participant per participant per participant per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note I some pilots taking a 'Direct hatal' approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the list five years. Using the most recently available data.
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  IRA max credit value as \$3/kg H2 feasible when the hydrogen p	S S RRAs  Escalation rate  Escalation rate  production carbon inten	Year 1  ITC tax credit, taken as 30% of up  Year 1  Year 1	- \$ - \$ - \$ pfront capital costs (for because of the second of the secon	Year 2  Year 2	Year 3   Year 3   Year 3   Year 3   Year 3   3.82%   Year 3   Ye	Year 4  \$ 94.211   \$ 94.211   \$ 471.057   \$ - \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$	Year 5 \$ 94.21  Year 5 \$ 94.21  Year 5 \$ - 3 \$ - 3  Year 5  PVear 5  PVear 5  PVear 5  PVear 5  PVear 5  PVear 5	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage charge in the "all items" consumer price index available from the United States Dureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  It is used to clear up. But rules would seem to allow (if some conditions are met) for green tarif electricity to be counted to
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  IRA max credit value as \$3/kg H2 feasible when the hydrogen p	S S RRAs  Escalation rate  Escalation rate  production carbon inten	Year 1  ITC tax credit, taken as 30% of up  Year 1  Year 1	- \$ - \$ - \$ pfront capital costs (for because of the second of the secon	Year 2  Year 2  Oth solar and electrol Year 2  Year 2  3.82% ase for this on-site sies max credit)	Year 3   \$ 8,172,579	Year 4  \$ 94.211   \$ 94.211   \$ 471.057   \$ \$ 97.211   \$ \$ 471.057   \$ \$ \$ 1 \$ \$ \$ \$ 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Vear 5  Vear 5  9 4/21  9 4/21  Vear 5	USD (Nominal) Cost Unit:  per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captized separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant folia costs will be used in the Participant Cost sests for the NGIA evaluation criteria. Note 2 some pilots taking a 'Direct instalf approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  IRA max credit value as \$3/kg H2 feasible when the hydrogen p	S S RRAs  Escalation rate  Escalation rate  production carbon inten	Year 1  ITC tax credit, taken as 30% of up  Year 1  Year 1	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  Year 2  Oth solar and electrol Year 2  Year 2  3.82% ase for this on-site sies max credit)	Year 3   \$ 8,172,579	Year 4  \$ 94.211   \$ 94.211   \$ 471.057   \$ \$ 97.211   \$ \$ 471.057   \$ \$ \$ 1 \$ \$ \$ \$ 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Vear 5  Vear 5  9 4/21  9 4/21  Vear 5  1 4/21  1 5/21  Vear 5  1 8/21  Vear 5  3 8/22  Vear 5  Vear 5  Vear 5  PV, but instead roposal, and the droposal, and the many or matching of re may assume the may assume the droposal of the dropos	USD (Nominal) Cost Unit:  per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Oriest Participant Polic costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note is some pilots taking a 'Direct install' approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  **Total Costs and Costs a
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  IRA max credit value as \$3/kg H2 feasible when the hydrogen p	S S RA's S S ITC Rebate level:	Year 1 ITC tax credit, taken as 30% of up Year 1 Year 1 sity is lower than 0.45kg CO2e/kg	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  Year 2  Onth solar and electrol Year 2  Year 2  3.82% ase for this on-site shes max credit)  for both Size A and B)  5660,000	Year 3   \$ 8,172,579	Year 4  \$ 94.211   \$ 471.057   \$ 471.057   \$ 5 - 1   \$ 9.221   \$ 10.25   \$ 1	Veer 5  Veer 5  9 4/21  9 4/21  Veer 5  9 4/21  9 3/82  Veer 5	USD (Nominal) Cost Unit: per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant per particip	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Oriest Participant Polic costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note is some pilots taking a 'Direct install' approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  **Total Costs and Costs a
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Calculations & Other Explanation:  IRA max credit value as \$3/kg H2 feasible when the hydrogen p	S S RA's S S ITC Rebate level:	Year 1  ITC tax credit, taken as 30% of up Year 1  Year 1  Sity is lower than 0.45kg CO2e/kg	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  Year 2	Year 3   \$ 8,172,579	Year 4  \$ 94.211   \$ 94.211   \$ \$ 471,057   \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ \$ \$ - \$	Year 5 \$ 94.21  Year 5 \$ 94.21  Year 5 \$ - 3 \$ - 3  Year 5  Pear 5  Pear 5  Pear 5  Pear 9  Year 9  Ye	USD (Nominal) Cost Unit:  per participant  per participant  per participant  USD (Nominal) Cost Unit:  per participant  per p	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Oriest Participant Polic costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note is some pilots taking a 'Direct install' approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  **Total Costs and Costs a
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  IRA max credit value as \$3/kg H2 feasible when the hydrogen p	S S RA's S S ITC Rebate level:	Year 1 ITC tax credit, taken as 30% of up Year 1 Year 1 sity is lower than 0.45kg CO2e/kg	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  Year 2  Onth solar and electrol Year 2  Year 2  3.82% ase for this on-site shes max credit)  for both Size A and B)  5660,000	Year 3   \$   172,579   \$   8,172,579   \$   8,172,579   \$   8,172,579   \$   8,172,579   \$   8,172,579   \$   9	Year 4  \$ 94.211   \$ 94.211   \$ 471.057   \$ 5 - 1 \$ \$ \$ - 5 \$ \$ - 5 \$ \$ - 5 \$ \$ - 1 \$ \$ \$ 1.05   \$ 1.0	Year 5 \$ 94.21  Year 5 \$ 94.21  Year 5 \$ - 3 \$ - 3  Year 5  Pear 5  Pear 5  Pear 5  Pear 9  Year 9  Ye	USD (Nominal) Cost Unit: per participant per participant per participant USD (Nominal) Cost Unit: per participant per particip	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Oriest Participant Polic costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note is some pilots taking a 'Direct install' approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  **Total Costs and Costs a
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Total Pilot Upfront Costs, Size C Total Pilot Upfront Costs, Size A Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation: IRA max credit value as \$3/kg H2 feasible when the hydrogen p  F Solar PV Capital Investment: Rest of Hydrogen Investment: Rest of Hydrogen Investment:	S S RA's S S ITC Rebate level:	Year 1 ITC tax credit, taken as 30% of up Year 1 Year 1 sity is lower than 0.45kg CO2e/kg	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  Year 2  Onth solar and electrol Year 2  Year 2  3.82% ase for this on-site shes max credit)  for both Size A and B)  5660,000	Year 3	Year 4  \$ 94.211   \$ 94.211   \$ 471.057   \$ 5 - 1 \$ \$ \$ - 5 \$ \$ - 5 \$ \$ - 5 \$ \$ - 1 \$ \$ \$ 1.05   \$ 1.0	Year 5 \$ 94.21  Year 5 \$ 94.21  Year 5 \$ - 3 \$ - 3  Year 5  Pear 5  Pear 5  Pear 5  Pear 9  Year 9  Ye	USD (Nominal) Cost Unit:  per participant  per participant  per participant  USD (Nominal) Cost Unit:  per participant  USD (Nominal) Cost Unit:  per participant  USD (Nominal) Cost Unit:  per participant  in the same areas of uncertainty final fulse where the same areas of uncertainty final rules where the same areas	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured asparsely above). This cost does not account for what portion of costs may be covered by utility incentives, nor stocked willy program admin costs.  If there are expectations for external funding sources (eg. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total uptront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  If you consume the conservative, only PTC credits on the portion of electricity from on-site solar has been assumed ctricity has no greenhouse gas emissions associated with its production but may have greenhouse gas emissions associated with its production but may have greenhouse gas emissions associated with its production but may have greenhouse gas emissions associated with its production but may have greenhouse gas emissions associated with its production but may have greenhouse gas emissions associated with its production but may have greenhouse gas emissions associated with its production but may have greenhouse gas emissions associated with its production but may have greenhouse gas emissions associated with its production but may have greenhouse gas emissions associated wi
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Calculations & Other Explanation:  IRA max credit value as \$3/kg H2 feasible when the hydrogen p F Solar PV Capital Investment:  Rest of Hydrogen Investment:  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A	S S RA's S S ITC Rebate level:	Year 1 ITC tax credit, taken as 30% of up Year 1 Year 1 sity is lower than 0.45kg CO2e/kg	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  Year 2  Oth solar and electrol Year 2  Year 2  3.82%  for both Size A and B)  S660,000  S0  Year 2	Year 3	Year 4  \$ 94.211   \$ 94.211   \$ 471.057   \$ 5 - 1 \$ \$ \$ - 5 \$ \$ - 5 \$ \$ - 5 \$ \$ - 1 \$ \$ \$ 1.05   \$ 1.0	Year 5 \$ 94.21  Year 5 \$ 94.21  Year 5 \$ - 3 \$ - 3  Year 5  Pear 5  Pear 5  Pear 5  Pear 9  Year 9  Ye	USD (Nominal) Cost Unit:  per participant per are some areas of uncertainty final rules are as one areas of uncertainty final rules are as for the participant on thydrogen production to hydrogen production to hydrogen produced using carbon-free electromatic participant per participant per year of pilot life	This represents the total equipment and installation costs for technologies implemented as part of this pilot (spacifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NQM evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant Cost tests for the NQM evaluation criteria. Note 1 some pilots taking a Direct hartalf approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the ID-month percentage charge in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  If you have not all the project.  If you have not all the project is a participant of project.  If you have not not not not not project is a participant in the protein of electricity from on-site solar has been assumed ctricity has no greenhouse gas emissions associated with its production but may have greenhouse gas emissions associated.
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  IRA max credit value as \$3/kg H2 feasible when the hydrogen p F Solar PV Capital Investment:  Rest of hydrogen investment:  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C	S S S S S S S S S S S S S S S S S S S	Year 1 ITC tax credit, taken as 30% of up Year 1 Year 1 sity is lower than 0.45kg CO2e/kg	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  Year 2  Oth solar and electrol Year 2  Year 2  3.82%  for both Size A and B)  S660,000  S0  Year 2	Year 3	Year 4  \$ 94.211   \$ 94.211   \$ 471.057   \$ 5 - 1 \$ \$ \$ - 5 \$ \$ - 5 \$ \$ - 5 \$ \$ - 1 \$ \$ \$ 1.05   \$ 1.0	Year 5 \$ 94.21  Year 5 \$ 94.21  Year 5 \$ - 3 \$ - 3  Year 5  Pear 5  Pear 5  Pear 5  Pear 9  Year 9  Ye	USD (Nominal) Cost Unit:  per participant  per participant  per participant  USD (Nominal) Cost Unit:  per participant  USD (Nominal) Cost Unit:  per participant  USD (Nominal) Cost Unit:  per participant  in the same areas of uncertainty final fulse where the same areas of uncertainty final rules where the same areas	This represents the total equipment and installation costs for technologies implemented as part of this pilot (spacifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. IRA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NQIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Others Participant Polic costs will be used in the Participant Cost tests for the NQIA evaluation criteria. Note is some pilots taking a Direct hatalf approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the I2-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statesitics, as reported in December for each of the last five years. Using the most recently available data.  **Total color of project**.**  Will need to clear up. But rules would seem to allow (if some conditions are met) for green tarif electricity to be counted to starting in 2028. To be conservative, only PTC credits on the portion of electricity from on-site solar has been assumed ctricity has no greenhouse gas emissions associated with its production but may have greenhouse gas emissions associated with the production but may have greenhouse gas emissions associated with the utility budget directly (in rows 107-109). Participant Non-Energy Costs will be used the production of policy as costs were instead entered into the utility budget directly (in rows 107-109). Participant Non-Energy Costs will be used to the contract of the production of the costs to the participant ton-Energy
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Calculations & Other Explanation:  IRA max credit value as \$3/kg H2 feasible when the hydrogen p F Solar PV Capital Investment:  Rest of Hydrogen Investment:  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A	S   S   S   S   S   S   S   S   S   S	Year 1 ITC tax credit, taken as 30% of up Year 1 Year 1 sity is lower than 0.45kg CO2e/kg	- \$ - \$ - \$ pfront capital costs (for bit of the costs)   - \$ - \$   \$   \$   \$   \$   \$   \$   \$	Year 2  Year 2	Year 3   S	Year 4 \$ 94,211   \$ 94,211   \$ 471,057   \$ \$ -1   \$ \$ 94,211   \$ \$ 471,057   \$ \$ -7   \$ \$ -7   \$ \$ -7   \$ \$ -7   \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 5 \$ 94.21 \$ 94.21 \$ 74er 5 \$ 94.21 \$ 74er 5 \$ -3.82*  Year 5 \$ -3.82*  Year 5 \$ -4.70 \$ 3.82*  Year 5 \$ -7  Year 5	USD (Nominal) Cost Unit: per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant USD (Nominal) Cost Unit: per participant  El (for each pilot analysis year)  To each pilot analysis year)  To each pilot analysis year)  El (for each pilot analysis year)  Some areas of uncertainty final rules year)  To funding  Some areas of uncertainty final rules year  Some areas year  Some areas of uncertainty final rules year  Some areas ye	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured imparately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participates in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note it some pilots taking a Direct histalf approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage charge in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  It is not to clear up. But rules would seem to allow (if some conditions are met) for green tarif electricity to be counted starting in 2028. To be conservative, only PTC credits on the portion of electricity from on-site solar has been assumed tricity has no greenhouse gas emissions associated with its production but may have greenhouse gas emissions associated with its production but may have greenhouse gas emissions associated with the production but may have greenhouse gas emissions associated in the Participant Non-friency Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  IRA max credit value as \$3/kg H2 feasible when the hydrogen p  Solar PV Capital Investment: Rest of Hydrogen Investment: Rest of Hydrogen Investment:  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:	S S S S S S S S S S S S S S S S S S S	Year 1  ITC tax credit, taken as 30% of up Year 1  Year 1  Sity is lower than 0.45kg CO2e/kg 0.000  Year 1	- \$ - \$ - \$ pfront capital costs (for bit of the costs)   - \$ - \$   \$   \$   \$   \$   \$   \$   \$	Year 2  Year 2  Oth solar and electrol Year 2  Year 2  3.82%  See for this on-site sones max credit)  For both Size A and B)  See0,000  S0  Year 2	Year 3   S	Year 4 \$ 94,211   \$ 94,211   \$ 471,057   \$ \$ -1   \$ \$ 94,211   \$ \$ 471,057   \$ \$ -7   \$ \$ -7   \$ \$ -7   \$ \$ -7   \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 5 \$ 94.21 \$ 94.21 \$ 74er 5 \$ 94.21 \$ 74er 5 \$ -3.82*  Year 5 \$ -3.82*  Year 5 \$ -4.70 \$ 3.82*  Year 5 \$ -7  Year 5	USD (Nominal) Cost Unit:  per participant per are some areas of uncertainty final rules are as one areas of uncertainty final rules are as for the participant on thydrogen production to hydrogen production to hydrogen produced using carbon-free electromatic participant per participant per year of pilot life	This represents the total equipment and installation costs for technologies implemented as part of this pilot (spacifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. IRA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NQIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Others Participant Polic costs will be used in the Participant Cost tests for the NQIA evaluation criteria. Note is some pilots taking a Direct hatalf approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the I2-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statesitics, as reported in December for each of the last five years. Using the most recently available data.  **Total color of project**.**  Will need to clear up. But rules would seem to allow (if some conditions are met) for green tarif electricity to be counted to starting in 2028. To be conservative, only PTC credits on the portion of electricity from on-site solar has been assumed ctricity has no greenhouse gas emissions associated with its production but may have greenhouse gas emissions associated with the production but may have greenhouse gas emissions associated with the utility budget directly (in rows 107-109). Participant Non-Energy Costs will be used the production of policy as costs were instead entered into the utility budget directly (in rows 107-109). Participant Non-Energy Costs will be used to the contract of the production of the costs to the participant ton-Energy
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Total Pilot Upfront Costs, Size A Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Calculations & Other Explanation:  IRA max credit value as \$3/kg H2 feasible when the hydrogen p  Solar PV Capital Investment: Rest of Hydrogen Investment: Rest of Hydrogen Investment: Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Water consumption I	Escalation rate  S2.20  \$2.20  \$2.80  Escalation rate  (kg water/kg H2):	Year 1  ITC tax credit, taken as 30% of up Year 1  Year 1  Sity is lower than 0.45kg CO2e/kg 0.000  Year 1	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  Year 2	Year 3   S	Year 4 \$ 94,211   \$ 94,211   \$ 471,057   \$ \$ -1   \$ \$ 94,211   \$ \$ 471,057   \$ \$ -7   \$ \$ -7   \$ \$ -7   \$ \$ -7   \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 5 \$ 94.21 \$ 94.21 \$ 74er 5 \$ 94.21 \$ 74er 5 \$ -3.82*  Year 5 \$ -3.82*  Year 5 \$ -4.70 \$ 3.82*  Year 5 \$ -7  Year 5	USD (Nominal) Cost Unit: per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant USD (Nominal) Cost Unit: per participant  El (for each pilot analysis year)  To each pilot analysis year)  To each pilot analysis year)  El (for each pilot analysis year)  Some areas of uncertainty final rules year)  To funding  Some areas of uncertainty final rules year  Some areas year  Some areas of uncertainty final rules year  Some areas ye	This represents the total equipment and installation costs for technologies implemented as part of this pilot (spacifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NOM evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant Cost tests for the NOM evaluation criteria. Note 1 some pilots taking a Direct hastalf approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the ID-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the lists five years. Using the most recently available data.  If the participant is the production of project.  If it is included any increased in costs like equipment operating costs or increased water costs. No costs were included here, because this is a utility owned pilot, as costs were instead entered into the utility budget directly (in rows 107-109). Participant Non-Energy Costs will be used in the Participant Cost tests for the NOM evaluation criteria.
RTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Total Pilot Upfront Costs, Size A Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Calculations & Other Explanation:  IRA max credit value as \$3/kg H2 feasible when the hydrogen p  F  Solar PV Capital Investment: Rest of Hydrogen Investment: Rest of Hydrogen Investment:  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Water consumption I Water consumption I	Escalation rate  S2,20  S2,20  S2,80  Escalation rate  (kg water/kg H2): etric ton of water:	Year 1  ITC tax credit, taken as 30% of up Year 1  Year 1  Sity is lower than 0.45kg CO2e/kg 0.000  Year 1	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Year 2  Year 2	Year 3   S	Year 4 \$ 94,211   \$ 94,211   \$ 471,057   \$ \$ -1   \$ \$ 94,211   \$ \$ 471,057   \$ \$ -7   \$ \$ -7   \$ \$ -7   \$ \$ -7   \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ \$ \$ -7   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 5 \$ 94.21 \$ 94.21 \$ 74er 5 \$ 94.21 \$ 74er 5 \$ -3.82*  Year 5 \$ -3.82*  Year 5 \$ -4.70 \$ 3.82*  Year 5 \$ -7  Year 5	USD (Nominal) Cost Unit: per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant USD (Nominal) Cost Unit: per participant  El (for each pilot analysis year)  To each pilot analysis year)  To each pilot analysis year)  El (for each pilot analysis year)  Some areas of uncertainty final rules year)  To funding  Some areas of uncertainty final rules year  Some areas year  Some areas of uncertainty final rules year  Some areas ye	This represents the total equipment and installation costs for technologies implemented as part of this pilot (spacifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NOM evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant Cost tests for the NOM evaluation criteria. Note 1 some pilots taking a Direct hastalf approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the ID-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the lists five years. Using the most recently available data.  If the participant is the production of project.  If it is included any increased in costs like equipment operating costs or increased water costs. No costs were included here, because this is a utility owned pilot, as costs were instead entered into the utility budget directly (in rows 107-109). Participant Non-Energy Costs will be used in the Participant Cost tests for the NOM evaluation criteria.
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Incremental Electricity cost for renewable electricity via Windsource (estimated net charge): \$ 0.0065 \$/kWh (used here because carbon-free power must be purchased for power to hydrogen pilots under Frameworks Order) (cel Energy's Windsource subscriptions are available in 100 kilowatt-hour (kWh) blocks. he Windsource charge includes a per block charge of \$3.53, less a credit for fuel costs. For Commercial and industrial demand customers, the average net charge in 2021 was \$0.65 per block. Actual costs will vary based on usage and monthly fuel credit variations. This cost is in addition to your current electric charges. If your electricity use is less than your Windsource commitment in a given month, you will be charged only for what you use. Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit: Participant Non-Energy Savings, Size A per participant per year of pilot life This includes any operating savings like water savings Participant Non-Energy Savings, Size B per participant per year of pilot life Participant Non-Energy Savings, Size C ENERGY SAVING Calculations & Other Explanation: verage Lifetime for Savings/Pilot Tech, Size A erage Lifetime for Savings/Pilot Tech, Size B verage Lifetime for Savings/Pilot Tech, Size C PILOT LIFE Calculations & Other Explanation: Avg. Dth/Participant Saved, Size A 4,232 Dth/Participant 21,160 Dth/Participant Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C Dth/Participant Calculations & Other Explanation: Assumes that all H2 produced is blended into gas distribution system displacing natural gas use by CenterPoint customers. Additional green Annual Solar electricity Installed Solar PV Capacity Solar Capacity Generation purchases from Annual Hydrogen Annual Hydrogen Factor (%) grid (MWh) Electrolyzer Size (MW) (MW) (MWh) Total electricity for Electrolyzers (MWh) Production (kg H2)) Production (MMBtu) Balance of Plant (BOP) Elecicity Consumption (KWh) Size A 19% 1.664 1,664 31,404 4,232 125.615 NERGY SAVING AVG. Dth/ Size B 19% 1664 6.658 8.322 157 019 21,160 628.075 Target Electrolyzer Additional annual Capacity Factor with Grid electricity consumption Purchases: 95% for pilot B vs. A (kWh): 7,160,060 Electricity consumption electrolyzer: 53 kWh/kg H2 4 kWh/kg H2 Electricity consumption BOP: Source: CenterPoint Experience Heat content per Kg of H2 (HHV) 0.1348 MMBTU/kg 63,481 Avg. Non-Gas Fuel Units/Part. Saved, Size A 0.00 kWh/Participant Units are kWh; could technically be other non-NG. Avg. Non-Gas Fuel Units/Part. Saved will be used in the Participant Cost tests for the NGIA evaluation criteria. 0.00 kWh/Participant vg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part, Saved, Size C kWh/Participant AVG. NON-GAS Avg Additional Non-Gas Fuel Units/Part Used Size A kWh/Participant Avg. Additional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria FUEL UNITS/ PART. Avg. Additional Non-Gas Fuel Units/Part.Used, Size B kWh/Participant Avg. Additional Non-Gas Fuel Units/Part.Used, Size C kWh/Participant Calculations & Other Explanation: Additional electricity usage is reflected in costs above so as to not over-count emissions. Year 2 Year 3 otal Annual Dth Saved, Size A 4.232 Natural gas energy savings that result from multiplying savings per participant times the total number of new participants in a given year Total Annual Dth Saved, Size B 21,160 OTAL ANNUAL D Total Annual Dth Saved, Size C SAVED Calculations & Other Explanation: Grid Mix Scenario Select one of the listed grid mix scenarios taking into account that: Not leveraged for GHG evaluation, which Utilities shall use electric-utility-specific generation mix information for the renewable natural gas facility when it is reasonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from National GRID MIX SCENARIO From Frameworks Order: "Carbon-free electricity includes dedicated carbon-free generation, electricity purchased pursuant to a Commission approved green-tariff program, and, for approval on a case-by-case basis, other carbon-free generation supported by a demonstration that the Calculations & Other Explanation: greenhouse gas intensity of the connected electric grid is not adversely impacted." ifecycle GHG Intensity, Size A Year 1 Year 2 Year 3 Year 4 Year 5

	Low Expected High		0.00	0.00	0.00	kg CO2e/participant kg CO2e/participant kg CO2e/participant	innovation (NGIA) plan, where applicable. High and low s other fuels used in the resource's lifecycle. Expected gre	as intensity for innovative resources included in a proposed Natural Gas Innovation Act cenarios shall incorporate at least low and high assumptions for electricity use and senhouse gas intensity values will be used in cost-benefit calculations and when
	Lifecycle GHG Intensity, Size B	Year 1	Year	2 Year 3	Year 4	Year 5	determining the expected greenhouse gas reduction of	pilot programs and NGIA plans.
	Low Expected		0.00	0.00	0.00	kg CO2e/participant 0.00 kg CO2e/participant		
	High					kg CO2e/participant		
	Lifecycle GHG Intensity, Size C Low	Year 1	Year	2 Year 3	Year 4	Year 5 kg CO2e/participant		
LIFECYCLE GHG INTENSITY BY	Expected High		0.00	0.00	0.00	0.00 kg CO2e/participant kg CO2e/participant		
PROJECT SIZE	Calculations & Other Explanation:	1		<u>.</u>	*			
		Size A	GHG Intensity Size	B Size C	Using this calculation structur	re is optional; if modifications are needed, please use the l	hidden rows or raise with project leads.	
	Low Scenario		kg CO2e/Dth					
	Expected Scenario High Scenario		-		-			
		kg CO2e/Dth						
	Default Geologic Gas Emissions Factor		66.14					
	From Frameworks Order: "Utilities may assume that hydrogen produced using c NG Dth/year savings profiled will already be calculating GHG savings based on 6	arbon-free electricity has no greenhous 36.14 factor.	se gas emissions associated wi	ith its production but may have gree	nhouse gas emissions asso	ciated with electricity used for compression, tra	ansportation, blending, injection, purification and pumpin	g of water, or other purposes."
OTHER PILOT-SPEC	FIC PARAMETERS (formerly 'General Parameters' in CIP Calculator):							
	Peak Reduction Factor		1% The estimated average	e annual effect of the project on system peal	k. It is estimated to be 1% for energ	av efficiency pilots. The method for other innovative resou	rces should be considered in the context of specific utility proposals.	Peak Reduction Factor will be used in the Utility Cost and Non Participant Cost tests for
PEAK REDUCTION FACTOR	Calculations & Other Explanation:		the NGIA evaluation cr	riteria.				
		Values now linked directly back to planning as	assumptions tab (possible given the o		P and N into a single file) Year 4	Year 5 USD (Nominal) Cost Unit:		
VARIABLE O&M	Variable O&M Cost, Applies to all project sizes	\$	0.05 \$	0.04 \$ 0.0	0.04 \$ 0.04 \$	0.04 per Dth	specific utility proposals. For example, resources like po	ever, the value for other innovative resources should be considered in the context of wer-to-hydrogen and RNG may not decrease O&M costs as they also need to be
VARIABLE OXM	Calculations & Other Explanation:	Year 1	Year		Year 4	Year 5	evaluation criteria.	ariable O&M will be used in the Utility Cost and Non Participant Cost tests for the NGIA
		n/a		-5.250% -5.250	-5.250%	-5.250% (for each pilot analysis year)	Annual Escalation Rate calculated using the average per	cent change in the price of natural gas between 2023 through 2027 to all users in the Wes
			USD (Nominal) Co					
NON-GAS FUEL COST	Non-Gas (i.e., Electric) Fuel Cost	\$	44.14 per MWh	The CIP methodology is equal to the average of c	used for all resources other than s daily real-time final market location	trategic electrification. The method for strategic electrifica nal marginal prices (LMP) at the Minnesota Hub from Janu	ation should be considered in the context of specific utility pilot propo ary 1, 2022 to December 31, 2022 using data from Midwest Independe	osals. ent System Operator (MISO)
COST	Calculations & Other Explanation:							
NON-GAS FUEL	Non-Gas Fuel Loss Factor		8.22%				ation should be considered in the context of specific utility pilot propo on loss factors and weighting by the utilities' 2017-2019 average retail	osals. In the most recent CIP, Staff used the weighted average of the most recent loss sales
LOSS FACTOR	Calculations & Other Explanation:							
OTHER QUANTITATI	VE CRITERIA:							
			USD Cost Unit:					
	Other Non-GHG Pollutants, Size A	\$	(0.004) per Dth	combustion of Hydrogen	in place of natural gas. The valuat	tion of NOx emissions comes from the same source, and t	he level of NOx emissions come from GREET. The negative net savings	rith the CIP methodology, this pilot accounts for increased NOx emissions from the shown here reflects slightly higher cost increases from NOx combustion than the Public Utilities Commission (Commission). The factors are reported in 2021 dollars in
OTHER NON-GHG	Other Non-GHG Pollutants, Size B	\$	(0.004) per Dth	Table 2 below, which were externality values for pilo	re calculated by inflating the Com- ots targeting specific geographies	mission's approved dollar per ton environmental cost valui or populations. For example, an energy efficiency project	es using escalation rate to adjust by observed inflation between 2014 that targets an urban area might use the urban value rather than the r	and 2021. Stakeholders expressed a preference for allowing utilities to select different metropolitan fringe value. Similarly, a project targeting a low-income population might
POLLUTANTS	Other Non-GHG Pollutants. Size C	s	(0,004) per Dth	use a high value rather ti	han the median. Utilities can make	deviations such as these in their NGIA plans if they can p. CI-14-643, utilities may use the value most applicable for	rovide justification for the change. Instead of requiring the use of med	lian metropolitan fringe values for all non-GHG pollutants, as shown in Table 1 of the
	Calculations & Other Explanation:							
	Net Direct Job Creation. Size A	Year 1	Year	2 Year 3	Year 4	Year 5 Total during 5 program year	rs Remainder of project life	Utilities should consider both jobs created by proposed pilots and jobs that
	Net Direct Job Creation, Size B Net Direct Job Creation, Size C		1	1	6 2	2	12 31 # of jobs # of jobs	may be eliminated by proposed pilots.
	Net Direct Job Creation, Size C						# or jobs	
	Net Indirect Job Creation, Size A	Year 1	Year	2 Year 3	Year 4	Year 5 Total during 5 program year	rs Remainder of project life  3 5 # of jobs	Utilities should consider both jobs created by proposed pilots and jobs that
NET JOB CREATION	Net Indirect Job Creation, Size B		0	0	6 3	3	12 47 # of jobs	may be eliminated by proposed pilots.
	Net Indirect Job Creation, Size C						# of jobs	
	Net Induced Job Creation, Size A	Year 1	Year	2 Year 3	Year 4	Year 5 Total during 5 program year	rs Remainder of project life	
	Net Induced Job Creation, Size A		0	0	5 2	2	4 5 # of jobs 9 36 # of jobs	
	Net Induced Job Creation, Size A	March 15th 2024 Undate: Note that No	et Job Creation impacts have n	not been updated with the current cl	hanges to this pilot.		# of jobs	

		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		
	Public Co-Benefits, Size A Public Co-Benefits, Size B	\$ - \$ \$ - \$	- 5	-	\$ - \$ -	\$ - \$ -	per year per year	Quantifiable in some cases. If this metric isn't quantifiable, there is sp Considerations section below.	ace for any qualitative comments in the Additional Qualitative
PUBLIC CO- BENEFITS	Public Co-Benefits, Size C	\$ - \$	- 8	-	\$ -	\$ -	per year		
	Calculations & Other Explanation:								
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		
	Water Pollution, Size A	\$ - \$	- 5		\$ -	\$ -	per year	The legislation left the door open to quantify any costs and benefits of this metric isn't quantifiable, there is space for any qualitative comme	on water pollution. This might be quantifiable for some of the projects. If
WATER POLLUTION	Water Pollution, Size B Water Pollution, Size C	\$ - \$ \$ - \$	- :	5 - 5 -	\$ -	\$ -	per year per year	tris metric isn't quantinable, there is space for any qualitative commi	nts in the Additional Qualitative Considerations section below.
	Calculations & Other Explanation:							_	
	ATIVE CONSIDERATIONS:								
NGIA Utility Perspective Notes:									
	It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and								
Definition:	CIP quantification methods.								
NGIA Participants' Perspective Notes:									
Definition:	It is expected that many of the elements of the participant perspective, with resp		d will rely on the structural values		ation related to som	e direct effects o	of pilots on participants that may not be easily	quantifiable. For example, increased comfort in a	
	home and health benefits from pilots that improve indoor air quality are two exar	mpies or benefits that may be difficult to quantify.							
NGIA Nonparticipating									
Customers' Perspective Notes:									
	As with the utility perspective, the direct effects of pilot programs on non-								
Definition:	participating customers should be quantified in most cases and can be heavily informed by structural values.								
	Provides widespread benefits to all sales customers								
Effects on Other Energy Systems									
and Energy									
Security: Definition:									
	NGIA invites the Commission to consider how innovative resources fit into the ei empowers the Commission to consider a wide variety of "costs and benefits tha	nergy system with a broader perspective than effects it may be expected under a plan," one of which is a red	on the gas utility and its customei action of reliance on imported res	rs. Measures like strate sources and national fo	egic electrification s <sub>i</sub> uel markets.	oecifically requir	e gas utilities and the Commission to avoid ne	gative effects on the electric system. Further, the NGIA	
	Fuel made in MN and reduces import of fuel from outside of MN; hydrogen may	place burden on electric grid							
GHG Emissions									
Notes:	An innovation plan must include the total lifecycle GHG emissions that the utility	and instances the restricted as a cided through involunce	ting the plan. This banefit abouted	ba aanavallu ayaasifiab	de caina the Commi	anion approved	CHC associating framework and CHC automat	liturushusa Mata that this yayr also salla fay disarraisa af	
	any environmental justice effects of the pilot related to GHG emissions, these ma	ay not be quantifiable.	ung trie plan. This benefit should i	be generally quantinat	ne daing the Commi	ssion-appioved	and accounting harnework and and external	rcy values. Note that this few also cans for discussion of	
Other Pollution Notes:									
Definition:	Include any additional non-GHG environmental costs and benefits. For example,	offeets on water pell sing that way not be aventifiable	ar angellie eir grelite kanglite to		nite . Mata that this a	laa aalla fax diaa	unaing of any angina amountal instina affants of	the pilet related to non-CUC pollution	
	include any additional non-and environmental costs and benefits. For example, i	errects on water poliution that may not be quantifiable	or specific all quality benefits to	a low income commu.	nity. Note that this a	ISO CAIIS FOF GISC	ussion of any environmental justice effects of	the pilot related to horr-and politition.	
Waste Reduction									
and Reuse Notes:	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes								
Definition:	reduction of water use.								
Policy Notes:									

	NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable
Definition:	resources. Reduces fossil gas throughput; increases use of renewable energy
let Job Creation	
lotes:	
	An innovation plan must include, as applicable, "projected local job impacts resulting from implementation of the plan." Utilities should consider both jobs
Definition:	created by proposed pilots and jobs that may be eliminated by proposed pilots. This type of project can creates high-wage jobs during construction and also long-term employment options for high-skill, displaced workers from traditional energy industries (as the skillset from the coal oil, gas, and petrochemical segments transfers directly to green H2production).
<u>conomic</u>	
evelopment otes:	
Definition:	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.
	Will pay prevailing wages; will seek apprentices; will seek to hire from local community; will take advantage of higher IRA credits due to labor practices; hydrogen projects represent clean energy opportunity for workers from traditional fossil fuel jobs; will help MN build hydrogen workforce as hydrogen poised for growth due to IRA
	ina.
ublic Co-Benefits	
lotes: Definition:	
emilion.	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.
larket	
evelopment otes:	
efinition:	
	The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are realized
irect Innovation	
upport Notes: lefinition:	This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA40 are unlikely to produce significant benefits on their own but
OTHEROIL	are intended to lead to future opportunities.
	Opportunity for Company to learn about hydrogen blending, storage, and use of solar
esource calability and Role	
n a Decarbonized	
ystem Notes: Pefinition:	
	While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.
	meletion received into the contract of the con

) ICF	CNPO8 - Green Hydrogen Archetype for Industrial or Large Commercial Facility	Click here to go back to the list of all pilots				V	GIA Pilot Profiles Workbook		
	Pilot Project Code:	CNPO8							
		Green Hydrogen Archetype for Industrial or							
	Pilot Project Name:	Large Commercial Facility							
	Customer Class/ Sector:	C&I							
	Low-Income Community Benefit?	Territory-wide							
	Target Area: Primary Innovative Resource Category:	Power-to-Hydrogen	Select primary Innovation C	Category. Others can be listed h	ere:	Г			
	. ,			• ,		1			
DESCRIPTION	<u>Pilot Description:</u> CenterFoint Energy would offer incentives covering a portion (100%, up to a max ocustomers, who would own and operate the systems. CenterPoint has not yet ide								
	Overview of Program/Implementation Approach: The projects would be expected to purchase renewable electricity from grid to su load. Some additional programmatic support to identify potential sites and assist	upply the electrolyzers, and so even with potential II with feasibility studies for the projects is also envis	IRA incentives and the upfron sioned. CenterPoint Energy w	t funding from CenterPoint Ener ould create a measurement and	gy, participants in this pilot wo verification plan to monitor sy	uld be committing to a stem performance for a	considerable cost increase in their elect period of time following installation.	tricity supply in order to decarbonize (part of) their heating	
	Other Comments / Information:  Possible that some participants could be larger or smaller than the electrolyzer si	ze below.							
(EY PILOT-SPECIFIC	INPUTS:							"	
			v	V	W	V			
	Pilot Year Calendar Year	Year 1 2024	Year 2 4 2025	Year 3	Year 4 2027	Year 5 2028			
	Participating Units, Size A	(	0 0	1	0	0 In	cremental units added, annual (not cumulative).		
	Participating Units, Size B	(	0	1	1	0			
	Participating Units, Size C	C	0	1	1	1			
	Unit of Participation = Calculations & Other Explanation:	Industrial facilities installing 5MW electrolyzer							
	Assumes all H2 production onsite from electrolyzers, PEM electrolysis,								
	contracted carbon free electricity rather than onsite generation	Single Unit: Small PEM Electrolysis							
			kW electricity input		Size /		electrolyzer customer (total for 5 year p		
NUMBER OF	Balance of Plant electricity includes pumps, other electricity needed for	53	Electricity consumption e	lectrolyzer kWh/ kg H2	Size I	3 2	electrolyzer customers (total for 5 year	r plan)	
PARTICIPANTS	hydrogen production:	1	Electricity consumption B	OP kWh/kg H2	Size (	c a	electrolyzer customers (total for 5 year	r plan)	
	.,,0	6	Total Electricity consump			-		·	
		95	Capacity kg H2 output/ ho	our					
	This relates to industrial facility site's NG firing rate (facility scale); how much NG		Ī						
	are you trying to displace w/ H2: By way of comparison, the AEO Reference Case annual capacity utilization rates	13	Capacity MMBtu H2 outpu	it HHV/ hour		134,762 B	tu/kg H2, HHV		
	for solar averages 23.5% and wind averages 37.4% in 2050. Combining solar &								
	wind would increase these CUs.	389	Annual capacity utilization	n for electrolyzer					
		315,973	Output kg/year						
		42,581	Output MMBtu HHV/year	(for one electrolyzer)					
		Year 1	Year 2	Year 3	Year 4	Year 5 U	SD (Nominal) Cost Unit:		
	Annual Total Utility Incremental Cost, Size A	\$ 148,500	\$ 21,630		12,838 \$ 1,558,705 \$	63,159 t	otal cost per year	These incremental utility costs are what will count against the NGIA but	Iget cap for this measure and will be used in the Utility Cost, and Non
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C	\$ 148,500 \$ 148,500	\$ 24,130	\$ 1,555,908 \$	1,558,705 \$		otal cost per year otal cost per year	deployment, and/or the utility's annual revenue requirement for capital	utility admin costs to run pilot, any incentive funding to support project investments made on select pilots.
	All I deal of the y more months and object of	140,000	24,100	4 1,007,100	,,00,,200	Ç/11,020 C	otal cost per year		
		Year 1	Year 2	Year 3	Year 4		SD (Nominal) Cost Unit:		
	Fixed O&M Cost, Size A	\$ 148,500	\$ 21,630		12,838 \$	63,159 t	otal cost per year	Fixed O&M Cost is the result of adding up Total Project Delivery, Adver Workforce Development of Market Transformation Cost	tising and Promotions, Utility Administration, Trade Ally Incentives, and
	Fixed O&M Cost, Size B Fixed O&M Cost, Size C	\$ 148,500 \$ 148,500	\$ 24,130 \$ 24,130		28,705 \$ 31205 \$		otal cost per year otal cost per year	Workforce Development of Market Transformation Cost	
	TIMEG COMM COSE, SIZE C	4 140,500	24,100	27,100	31,203	101,023	otal cost per year		
		Year 1	Year 2	Year 3	Year 4		SD (Nominal) Cost Unit:		
	Total Project Delivery, Size A	\$ 146,000			12,838 \$	63,159 p	er year	Total internal and external project delivery	
	Total Project Delivery, Size B Total Project Delivery, Size C	\$ 146,000 \$ 146,000			28,705 \$ 28,705 \$	115,288 p 181,523 p	er year		
	Total Floject Delivery, Size C	\$ 140,000	21,000	9 20,000 9	20,703 #	ю,о25 р	ei yeai		
		Year 1	Year 2	Year 3	Year 4	Year 5 U	SD (Nominal) Cost Unit:		
	Internal Project Delivery, Size A	\$ 21,000			10,709 \$	11,030 p	er year	CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" cate	gory above.
	Internal Project Delivery, Size B Internal Project Delivery, Size C	\$ 21,000 \$ 21,000	\$ 21,630 \$ 21,630		22,947 \$ 22,947 \$	11,030 p 23,636 p	er year		
	internal Project Delivery, Size C	\$ 2,000	21,000	φ 22,270 φ	22,047 Ø	23,030 p	ei yeai		
		Year 1	Year 2	Year 3	Year 4	Year 5 U	SD (Nominal) Cost Unit:	<u></u>	
	External Project Delivery, Size A	\$ 125,000		\$ 3,629 \$	2,129 \$	52,129 p	er year	External vendor costs would include direct install costs where CNP rein category above.	burses the vendor. These costs are sub-set of the Utility "Fixed O&M Cos
	External Project Delivery, Size B External Project Delivery, Size C	\$ 125,000 \$ 125,000	\$ -	\$ 3,629 \$ \$ 3,629 \$	5,758 \$ 5,758 \$	104,258 p 157,887 p	er year	category above.	
	External Froject Delivery, SIZE C	125,000		* 3,029 \$	3,730   \$	137,007	o. you		
		Year 1	Year 2	Year 3	Year 4		SD (Nominal) Cost Unit:		
	Advertising and Promotions, Size A	\$ 2,500		\$ - \$	- \$		er year	These costs are sub-set of the Utility "Fixed O&M Cost" category above	ı
	Advertising and Promotions, Size B Advertising and Promotions, Size C	\$ 2,500 \$ 2,500		\$ - \$ \$ 1,250 \$	- \$ 2,500 \$		er year		
	Advertising and Fromotions, size C	2,500	2,500	ψ I,20U \$	2,000   \$	- p	er year		
		Year 1	Year 2	Year 3	Year 4	Year 5 U	SD (Nominal) Cost Unit:		
	Allocation of General Portfolio Costs, Size A	\$ -	\$ -	\$ - \$	- \$	- p	er year	Share of portfolio level costs, including plan development costs, regular	ory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size B			\$ - \$	- \$	- p	er year	_	
	Allocation of General Portfolio Costs, Size C		-	\$ - \$	-  \$	- p	er year		
		Year 1	Year 2	Year 3	Year 4	Year 5 U	SD (Nominal) Cost Unit:		
	Trade Ally Incentives, Size A			\$ - \$	- \$	- p	er year	If applicable, include here the annual amount of trade ally incentives (e.	g. midstream program)
	Trade Ally Incentives, Size B	-	\$ -	\$ - \$	- \$	- p	er year		
	Trade Ally Incentives, Size C	2 -	-	- \$	- \$	- p	er year		

		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Workforce Development or Market Transformation Cost, Size A	\$	- \$	- \$	-	\$ - \$	- Teal 5	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Workforce Development or Market Transformation Cost, Size B	\$	- \$	- \$	-	\$ - \$	-	per year	
UTILITY PILOT	Workforce Development or Market Transformation Cost, Size C	\$	- \$	- \$	-	\$ - \$		per year	
COSTS		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Other Fixed O&M Cost, Size A	\$	- \$	- \$	-	\$ - \$	-	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Other Fixed O&M Cost, Size B Other Fixed O&M Cost, Size C	\$	- S	- S	-	s - s		per year per year	
	Other Fixed Oddin Cost, Size C	•		•		•			
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Total utility capital investment, Size A Total utility capital investment, Size B	\$	- \$ - \$	- \$	-	\$ - \$		per year per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital
	Total utility capital investment, Size C	\$	- \$	- \$	-	\$ - \$	-	per year	investments (shown below).
				W					
	Est. Annual Revenue Requirement for Capital Projects, Size A	Year 1	- \$	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as well
	Est. Annual Revenue Requirement for Capital Projects, Size B	\$	- \$	- \$	-	\$ - \$	-	per year	as the utility 'Fixed O&M Costs' captured above. This revenue requirement is calculated from the magnitude & timing of capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
	Est. Annual Revenue Requirement for Capital Projects, Size C	\$	- \$	- \$	-	\$ - \$	-	per year	abore, cased on expected measure life (and depreciation line period), as well as the dility's retain on invasions.
		Total		D (Nominal) Cost Unit:					
	Est. Total Revenue Requirement for Capital Projects, Size A Est. Total Revenue Requirement for Capital Projects, Size B	\$	- per	r year r year					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to calculate any of
	Est. Total Revenue Requirement for Capital Projects, Size B	\$	- per	ryear					the NGIA evaluation criteria.
	Incentives, Size A	Year 1	- \$	Year 2	Year 3 1530,000	Year 4	Year 5	USD (Nominal) Cost Unit: per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc). Do not include here
	Incentives, Size B	\$	- \$	- \$	1,530,000	\$ 1,530,000 \$	-	per year	cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install
	Incentives, Size C	\$	- \$	- \$	1,530,000	\$ 1,530,000 \$	1,530,000	per year	measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will be used in the Participant Cost tests for the NGIA evaluation criteria.
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives per Participant, Size A	#DIV/O!		#DIV/0! \$	1,530,000	#DIV/O!	#DIV/O!	per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size B	#DIV/0!		#DIV/0! \$	1,530,000	\$ 1,530,000	#DIV/O!	per participant per year	
	Incentives per Participant, Size C	#DIV/0!		#DIV/0! \$	1,530,000	\$ 1,530,000 \$	1,530,000	per participant per year	
	Calculations & Other Explanation:								
		Single Unit: Small PEM Electrolysi	is Ass	sumes no compressor neede tal electrolyzer CapEx (\$/k)		site			
		\$		tal electrolyzer Capex (\$/kv tal electrolyzer Capex (\$)	(V)				
		\$	1,971 Tot	tal investment cost in \$/kW	electrolyzer input				
		\$	11.88 Tot	tal investment cost in \$/kg a tal investment cost in \$/MM	annual capacity	ite			
		•		tal ilivootinent coot ili oji-il-	ibta i ii i v ai ii aai capac	•••			
	Support for Studies		\$30,000 \$125.000	Full Study Cost: \$	200,000				
	Scoping Study / Customer Identification CapEx Incentive, After Third Party Funding %			to \$1.5M cap)					
	M-RETS RTC Registration Costs								
	M-KETS KTC Registration Costs		\$U.U5 \$/K	Renewable Thermal Certificat	te (1 RTC = 1 Dth)				
	M-RETS Generator Registration Fee (One Time)	: \$	1,500.00	enewable Thermal Certificat	te (1 RTC = 1 Dth)				
	M-RETS Generator Registration Fee (One Time) M&V - Total Cost for Whole Pilot	: \$	\$0.05 \$/R 1,500.00 \$50,000	lenewable Thermal Certificat	te (1 RTC = 1 Dth)				
	M-RETS Generator Registration Fee (One Time) M&V – Total Cost for Whole Pilot	: \$	1,500.00 \$50,000	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	M-RETS Generator Registration Fee (One Time)  M&V - Total Cost for Whole Pilot  Total Pilot Upfront Costs, Size A	: \$	1,500.00 \$50,000	Year 2 10,641,674   \$	Year 3 10,841,674	\$ 10,641,674 \$	10,641,674	per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility
	M-RETS Generator Registration Fee (One Time) M&V – Total Cost for Whole Pilot	: \$	1,500.00 \$50,000	Year 2	Year 3	\$ 10,641,674 \$ \$ 10,841,674 \$	10,641,674 10,641,674	USD (Nominal) Cost Unit:  I per participant  per participant  per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be cowered by utility incentives, nor include utility program admin costs.
	M-RETS Generator Registration Fee (One Time)  M&V - Total Cost for Whole Pilot  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B	Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1,500.00 \$50,000 10,641,674 \$ 10,641,674 \$	Year 2 10,641,674 \$ 10,641,674 \$ 10,641,674 \$	Year 3 10,841,674 10,841,674 10,841,674	\$ 10,641,674 \$ \$ 10,841,674 \$ \$ 10,841,674 \$	10,641,674 10,641,674 10,841,674	per participant per participant per participant	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility
	M-RETS Generator Registration Fee (One Time) M&V - Total Cost for Whole Pilot Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C	: \$	1,500.00 \$50,000 10,641,674 \$ 10,641,674 \$ 10,641,674 \$	Year 2 10,641,674 \$ 10,641,674 \$	Year 3 10,841,674 10,841,674 10,841,674 Year 3	\$ 10,641,674 \$ \$ 10,841,674 \$	10,641,674 10,641,674 10,841,674 Year 5	per participant per participant per participant per participant USD (Nominal) Cost Unit:	That were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
	M-RETS Generator Registration Fee (One Time)  M&V - Total Cost for Whole Pilot  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size B  Third Party Funding, Size A  Third Party Funding, Size A	Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1,500.00 \$50,000 10,641,674 \$ 10,641,674 \$	Year 2 10,641,674 \$ 10,641,674 \$ 10,641,674 \$ Year 2	Year 3 10,841,674 10,841,674 10,841,674	\$ 10,641,674 \$ \$ 10,841,674 \$ \$ 10,841,674 \$ Year 4 \$ 8,699,856 \$	10,641,674 10,641,674 10,841,674 Year 5	I per participant I per participant I per participant USD (Nominal) Cost Unit: I per participant	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility
	M-RETS Generator Registration Fee (One Time)  M&V - Total Cost for Whole Pilot  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A	Year 1 S S S S S S S S S S S S S S S S S S	1,500.00 \$50,000 10,641,674 \$ 10,641,674 \$ 10,641,674 \$ 8,699,856 \$ 8,699,856 \$	Year 2 10,641,674 \$ 10,641,674 \$ 10,641,674 \$  Year 2 8,699,856 \$ 8,699,856 \$ 8,699,856 \$	Year 3 10,841,674 10,841,674 10,841,674 Year 3 8,699,856 8,699,856	\$ 10,641,674 \$ \$ 10,841,674 \$ \$ 10,841,674 \$  Year 4 \$ 8,699,856 \$ \$ 8,699,856 \$ \$ 8,699,856 \$	10,641,674 10,641,674 10,841,674 Year 5 8,699,851 8,699,851 8,699,851	per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility orgams admin costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not
	M-RETS Generator Registration Fee (One Time) M&V - Total Cost for Whole Pilot Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B	Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1,500.00 \$50,000 10,641,674 \$ 10,641,674 \$ 10,641,674 \$ 8,699,856 \$ 8,699,856 \$ \$,3/kg incentive, whi	Year 2 10,641,674 \$ 10,641,674 \$ 10,641,674 \$  Year 2 8,699,856 \$ 8,699,856 \$ 3,699,856 \$ 3,699,856 \$ 3,699,856 \$ 3,699,856 \$ 3,699,856 \$ 3,699,856 \$ 3,699,856 \$ 3,699,856 \$ 3,699,856 \$ 3,699,856 \$ 3,699,856 \$ 3,699,856 \$	Year 3 10.841,674 10.841,674 10.841,674 Year 3 8,699,856 8,699,856 8,699,856	\$ 10,641674 \$ \$ 10,841674 \$ \$ 10,841674 \$ \$ 10,841674 \$  Year 4 \$ 9,699,856 \$ \$ 9,699,956 \$ \$ 9,699,956 \$ \$ 10,97001. As such the total fundir	10,641,674 10,641,674 10,841,674 Year 5 8,699,851 8,699,851 8,699,851 g from 10 years is	per participant   per participant   per participant   per participant   per participant   per participant   USD (Nominal) Cost Unit:   per participant   p	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility orgams admin costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not
	M-RETS Generator Registration Fee (One Time)  M&V - Total Cost for Whole Pilot  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size B  Third Party Funding, Size A  Third Party Funding, Size A	Year 1  S S S Flan for this pilot is to take the IRA included here, to be accounted for instead this 3 rapt IRA flanding.	1,500,00 \$50,000 10,641,674 \$ 10,641,674 \$ 10,641,674 \$ 8,699,856 \$ 8,699,856 \$ 8,699,856 \$ 8,699,856 \$	Year 2  10,641,674   \$ 10,641,674   \$ 10,641,674   \$ \$ 10,641,674   \$  Year 2  8,699,856   \$ 8,699,856   \$ \$ ch will be calculated on an an effectiveness tests, but the	Year 3 10,841,674 10,841,674 10,841,674 Year 3 8,699,856 8,699,856 8,699,856 mual basis (not all paids se values ARE NOT use	\$ 10,841674 \$ \$ 10,841674 \$ \$ 10,841674 \$  Year 4 \$ 8,699,856 \$ \$ 8,699,856 \$ \$ 9,699,856 \$ \$ upfront). As such the total funding to the charge the Direct Participant	10,641,674 10,641,674 10,841,674 Year 5 8,699,856 8,699,856 8,699,856 9,699,856 10,9998 is Upfront Costs below	per participant   per participant   per participant   per participant   per participant   per participant   USD (Nominal) Cost Unit:   per participant   p	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility orgams admin costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not
	M-RETS Generator Registration Fee (One Time) M&V - Total Cost for Whole Pilot Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B	Year 1 S S S S Year 1 S Pan for this pilot is to take the IRA	1,500,00 \$50,000 10,641,674 10,641,674 \$ 10,641,674 \$ 8,699,856 \$ 8,699,856 \$ 8,699,856 \$ 8,699,856 \$	Year 2  10,641,674   \$ 10,641,674   \$ 10,641,674   \$ \$ 10,641,674   \$  Year 2  8,699,856   \$ 8,699,856   \$ \$ ch will be calculated on an an effectiveness tests, but the	Year 3 10,841,674 10,841,674 10,841,674 Year 3 8,699,856 8,699,856 8,699,856 mual basis (not all paids se values ARE NOT use	\$ 10,841674 \$ \$ 10,841674 \$ \$ 10,841674 \$  Year 4 \$ 8,699,856 \$ \$ 8,699,856 \$ \$ 9,699,856 \$ \$ upfront). As such the total funding to the charge the Direct Participant	10,641,674 10,641,674 10,841,674 Year 5 8,699,856 8,699,856 8,699,856 9,699,856 10,9998 is Upfront Costs below	per participant   per participant   per participant   per participant   per participant   per participant   USD (Nominal) Cost Unit:   per participant   p	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility orgams admin costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not
	M-RETS Generator Registration Fee (One Time) M&V - Total Cost for Whole Pilot Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B	Year 1 S S S S Year 1 S S Plan for this pilot is to take the IRA included here, to be accounted for included here, to be accounted for instead this 37d party RA funding i this input is per year of pilot life).	1,500,00 \$50,000 10,641,674 10,641,674 \$ 10,641,674 \$ 8,699,856 \$ 8,699,856 \$ 8,699,856 \$ 8,699,856 \$	Year 2 10.641674 \$ 10.641674 \$ 10.641674 \$ 10.641674 \$ Year 2 8.699.856 \$ 8.699.856 \$ 8.699.856 \$ \$ 8.699.856 \$ \$ \$ 6.09.856 \$ \$ \$ 8.699.856 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 3 10.341,674 10.341,674 10.841,674 10.841,674 Year 3 8.699,856 8.699,856 8.699,856 rnmust basis (not all paid se values ARE NOT usec was 203–205 below (wh	\$ 10,64(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ 10,84(674   \$	10,641,674 10,641,674 10,841,674  Year 5 8,699,851 8,699,855 8,699,855 10,970m1 Oyears is Upfront Costs below y measure life, since	l per participant l per participant l per participant USD (Nomina) Cost Unit: l per participant	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility orgams admin costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not
	M-RETS Generator Registration Fee (One Time) M&V - Total Cost for Whole Pilot Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B	Year 1  S S S Flan for this pilot is to take the IRA included here, to be accounted for instead this 3 rapt IRA flanding.	1,500,00 \$50,000 10,641,674 10,641,674 \$ 10,641,674 \$ 8,699,856 \$ 8,699,856 \$ 8,699,856 \$ 8,699,856 \$	Year 2  10,641,674   \$ 10,641,674   \$ 10,641,674   \$ \$ 10,641,674   \$  Year 2  8,699,856   \$ 8,699,856   \$ \$ ch will be calculated on an an effectiveness tests, but the	Year 3 10,841,674 10,841,674 10,841,674 Year 3 8,699,856 8,699,856 8,699,856 mual basis (not all paids se values ARE NOT use	\$ 10,641674   \$ \$ 10,841674   \$ \$ 10,841674   \$ \$ \$ 10,841674   \$ \$ \$ 4,699,856   \$ \$ 8,699,856   \$ \$ 8,699,856   \$ \$ 10,970nt). As such to total funding to change the Direct Participant ere the 10 year value is divided by	10,641,674 10,641,674 10,841,674 Year 5 8,699,856 8,699,856 8,699,856 9,699,856 10,9998 is Upfront Costs below	per participant   per participant   per participant   per participant   per participant   per participant   USD (Nominal) Cost Unit:   per participant   p	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from
TOTAL AND DIRECT	M-RETS Generator Registration Fee (One Time)  M&V - Total Cost for Whole Pilot  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Third Party Funding, Size A  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size B	Year 1 S S S S Year 1 S S Plan for this pilot is to take the IRA included here, to be accounted for included here, to be accounted for instead this 37d party RA funding i this input is per year of pilot life).	1,500,00 \$50,000 10,641,674 10,641,674 \$ 10,641,674 \$ 8,699,856 \$ 8,699,856 \$ 8,699,856 \$ 8,699,856 \$	Year 2 10.641674 \$ 10.641674 \$ 10.641674 \$ 10.641674 \$ Year 2 8.699.856 \$ 8.699.856 \$ 8.699.856 \$ \$ 8.699.856 \$ \$ \$ 6.09.856 \$ \$ \$ 8.699.856 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 3 10.841,674 10.841,674 10.841,674 10.841,674 Year 3 8,699,856 8,699,856 8,699,856 9,699,856 9,699,856 Protual basis (not allowed basis) Protuction (wh	\$ 10,641674   \$ \$ 10,841674   \$ \$ 10,841674   \$ \$ \$ 10,841674   \$ \$ \$ 4,699,856   \$ \$ 8,699,856   \$ \$ 8,699,856   \$ \$ 10,970nt). As such to total funding to change the Direct Participant ere the 10 year value is divided by	10,641,674 10,641,674 10,841,674  Year 5 8,699,851 8,699,855 8,699,855 10,970m1 Oyears is Upfront Costs below y measure life, since	Der participant	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGA evaluation criteria.  This represents the supfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Diverticipant in the pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Diverticipant Polic costs will be used in the Patricipant Cost tests for the NGA evaluation criteria.
TOTAL AND DIRECT PARTIGIPANT PILOT COSTS	M-RETS Generator Registration Fee (One Time)  M&V - Total Cost for Whole Pilot  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:	Year 1 S S S S Year 1 S S Plan for this pilot is to take the IRA included here, to be accounted for included here, to be accounted for instead this 37d party RA funding i this input is per year of pilot life).	1,500,00 \$50,000 10,641,674 10,641,674 \$ 10,641,674 \$ 8,699,856 \$ 8,699,856 \$ 8,699,856 \$ 8,699,856 \$	Year 2 10.641674 \$ 10.641674 \$ 10.641674 \$ 10.641674 \$ Year 2 8.699.856 \$ 8.699.856 \$ 8.699.856 \$ \$ 8.699.856 \$ \$ \$ 6.09.856 \$ \$ \$ 8.699.856 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 3 10.841674	\$ 10,641674   \$ \$ 10,841674   \$ \$ 10,841674   \$ \$ \$ 10,841674   \$ \$ \$ 4,699,856   \$ \$ 8,699,856   \$ \$ 8,699,856   \$ \$ 10,970nt). As such to total funding to change the Direct Participant ere the 10 year value is divided by	10,641,674 10,641,674 10,841,674  Year 5 8,699,851 8,699,855 8,699,855 10,970m1 Oyears is Upfront Costs below y measure life, since	la per participant la per participant la per participant la per participant USD (Nominal) Cost Unit: la per participant la per participant la per participant la per participant USD (Nominal) Cost Unit: per participant	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from
PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time)  M&V - Total Cost for Whole Pilot  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size B  Direct Participant Pilot Costs, Size C  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size C  Calculations & Other Explanatory	Year 1 S S S S S Year 1 S S S Plan for this pilot is to take the IRA included here, to be accounted for included here, to be accounted for included here, to be accounted for included his rappy RA funding it this input is per year of pilot life).  Year 1 S S Year 1	1500.00   \$50,000   10,6416.74   \$ 10,6416.74   \$ 10,6416.74   \$ 10,6416.74   \$ \$ 10,6416.74   \$ \$ 8.699.856   \$ 8.699.856   \$ 8.699.856   \$ \$ 8.699.856   \$ \$ 37/kg incentive, whi in appropriate cost is added as "Participate of the cost of the co	Year 2  10.641674 \$ 10.641674 \$ 10.641674 \$ 10.641674 \$  Year 2  8.699.856 \$ 8.699.856 \$ 8.699.856 \$ 8.699.856 \$ 10.641674 \$ 10.741674 \$ 1	Year 3 10.841674	\$ 10,64(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ 10,84(674   \$ 10,84(674	10,64167- 10,64167- 10,64167- 10,84167- Year 5 8,699,859,859,859,859,859,859,859,859,859,8	le per participant	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant Cest tests for the NGIA evaluation criteria foot is come pilots taking protect install approved may see the utility covering all costs, who upfront francial contribution from the participant. Note 2: you
PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time)  M&V - Total Cost for Whole Pilot  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Third Party Funding, Size A  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size C	Year 1 S S S S S Year 1 S S S Plan for this pilot is to take the IRA included here, to be accounted for included here, to be accounted for included here, to be accounted for included his rappy RA funding it this input is per year of pilot life).  Year 1 S S Year 1	1,500,00 \$50,000 10,641,674 10,641,674 \$ 10,641,674 \$ 8,699,856 \$ 8,699,856 \$ 8,699,856 \$ 8,699,856 \$	Year 2	Year 3  N.841674  N.841674  N.841674  N.841674  Year 3  8.699,856  8.699,856  8.699,856  ARE NOT usecase avalues ARE NOT usecase avalues ARE NOT usecase 3  9.311674  9.311674	\$ 10,641674   \$ \$ 10,841674   \$ \$ 10,841674   \$ \$ \$ 10,841674   \$ \$ \$ \$ 10,841674   \$ \$ \$ \$ 10,841674   \$ \$ \$ 10,841674   \$ \$ \$ 10,841674   \$ \$ 10,841674   \$ 10,841674	10,64167- 10,64167- 10,64167- 10,84167- Year 5 8,699,859,859,859,859,859,859,859,859,859,8	Der participant	that were captured separately above). This cost does not account for whate portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the supfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total supfront project costs. Direct Praincipant Polic costs will be used in the Participant Cost sets for the NGIA evaluation criteria. In the total supfront project costs. Direct Praincipant Polic costs will be used in the Participant Cost sets for the NGIA evaluation criteria Note 2 you have been subtracted from the total supfront project costs. Direct Praincipant Polic costs will be used in the Participant Cost sets for the NGIA evaluation criteria Note 2 you have been subtracted from the total supfront project costs. Direct Praincipant Polic costs will be used in the Participant Cost sets for the NGIA evaluation criteria Note 2 you have been subtracted from the subtraction from the participant Note 2 you have been subtracted from the subtraction from the participant of the IZ-month corrections exceed a costs with no upfront frame in corrections from the participant Note 2 you have the average of the IZ-month corrections exceed a cost with no upfront frame in corrections of the IZ-month necrotrage changes in the Tall Items* consumer criteria swallede from the United
PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time)  M&V - Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C  Calculations & Other Explanation:  Escalation rates	Year 1 S S S S S Year 1 S S S Plan for this pilot is to take the IRA included here, to be accounted for instead this 37 rayr RA funding it this input is per year of pilot life).  Year 1 S S S Year 1	1500.00   \$50,000   10,6416.74   \$ 10,6416.74   \$ 10,6416.74   \$ 10,6416.74   \$ \$ 10,6416.74   \$ \$ 8.699.856   \$ 8.699.856   \$ 8.699.856   \$ \$ 8.699.856   \$ \$ 37/kg incentive, whi in appropriate cost is added as "Participate of the cost of the co	Year 2  10.641674 \$ 10.641674 \$ 10.641674 \$ 10.641674 \$  Year 2  8.699.856 \$ 8.699.856 \$ 8.699.856 \$ 8.699.856 \$ 10.641674 \$ 10.741674 \$ 1	Year 3 10.841674	\$ 10,64(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ 10,84(674   \$ 10,84(674	10,64167- 10,64167- 10,64167- 10,84167- Year 5 8,699,859,859,859,859,859,859,859,859,859,8	le per participant	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant Cest tests for the NGIA evaluation criteria foot is come pilots taking protect install approved may see the utility covering all costs, who upfront francial contribution from the participant. Note 2: you
PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time)  M&V - Total Cost for Whole Pilot  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size B  Direct Participant Pilot Costs, Size C  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size C  Calculations & Other Explanatory	Year 1 S S S S Year 1 S S S Plan for this pilot is to take the IRA included here, to be accounted for included here, to be accounted for included here, to be accounted for S S Year 1 S S Year 1 S S S	1500.00   \$50,00	Year 2   10.641674   \$ 10.64	Year 3 10.841674	\$ 10,64(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ 10,84(67	10,64167- 10,64167- 10,64167- 10,841,67- 10,841,67- 10,841,67- 10,841,67- 10,841,67- 10,948-11,948-1	Der participant     Der	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program addition costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this plot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Costs will be used in the Participant costs to the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this plot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant covering all costs, who upfront financial controllation from the participant. Note 2 you for an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time) M&V - Total Cost for Whole Pilot Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Third Party Funding, Size C  Description of source of external funding.  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate RA max credit value as \$3/kg H2 (tessible when the hydrogen production carbon	Year 1 S S S S Year 1 S S S Plan for this pilot is to take the IRA included here, to be accounted for included here, to be accounted for included here, to be accounted for S S Year 1 S S Year 1 S S S	1500.00   \$50,00	Year 2   10.641674   \$ 10.64	Year 3 10.841674	\$ 10,64(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ 10,84(67	10,64167- 10,64167- 10,64167- 10,841,67- 10,841,67- 10,841,67- 10,841,67- 10,841,67- 10,948-11,948-1	le per participant	If at were captured separately above). This cost does not account for what portion of costs may be covered by stillty incentives, nor include utility program addition costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant cost tests for the NGIA evaluation criteria. Note 2 you not provide the participant who participant will be used in the Participant control who have been added to the participant of the participant. Note 2 you for an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time) M&V - Total Cost for Whole Pilot Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Third Party Funding, Size C  Description of source of external funding.  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate RA max credit value as \$3/kg H2 (tessible when the hydrogen production carbon	Year 1 S S S S Year 1 S S S Plan for this pilot is to take the IRA included here, to be accounted for included here, to be accounted for included here, to be accounted for S S Year 1 S S Year 1 S S S	1500.00   \$50,00	Year 2   10.641674   \$ 10.64	Year 3 10.841674	\$ 10,64(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ 10,84(67	10,64167- 10,64167- 10,64167- 10,841,67- 10,841,67- 10,841,67- 10,841,67- 10,841,67- 10,948-11,948-1	Der participant     Der	If at were captured separately above). This cost does not account for what portion of costs may be covered by stillty incentives, nor include utility program addition costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant cost tests for the NGIA evaluation criteria. Note 2 you not provide the participant who participant will be used in the Participant control who have been added to the participant of the participant. Note 2 you for an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time) M&V - Total Cost for Whole Pilot Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Third Party Funding, Size C  Description of source of external funding.  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate RA max credit value as \$3/kg H2 (tessible when the hydrogen production carbon	Year 1 S S S S Year 1 S S S Plan for this pilot is to take the IRA included here, to be accounted for included here, to be accounted for included here, to be accounted for S S Year 1 S S Year 1 S S S	1500.00   \$50,00	Year 2   10.641674   \$ 10.64	Year 3   10.841674   10.8416	\$ 10,64(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ 10,84(67	10,64167- 10,64167- 10,64167- 10,841,67- 10,841,67- 10,841,67- 10,841,67- 10,841,67- 10,948-11,948-1	Der participant     Der	If at were captured separately above). This cost does not account for what portion of costs may be covered by stillty incentives, nor include utility program addition costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant cost tests for the NGIA evaluation criteria. Note 2 you not provide the participant who participant will be used in the Participant control who have been added to the participant of the participant. Note 2 you for an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time)  M&V - Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Escalation Filot Costs, Size B RA max credit value as \$3/kg H2 feasible when the hydrogen production carbon Funding from IRA	Year 1 S S S S Year 1 S S S Plan for this pilot is to take the IRA included here, to be accounted for included here, to be accounted for included here, to be accounted for S S Year 1 S S Year 1 S S S	1500.00   \$50,00	Year 2   10.641674   \$ 10.64	Vear 3 10.841674	\$ 10,64(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ 10,84(67	10,64167- 10,64167- 10,64167- 10,841,67- 10,841,67- 10,841,67- 10,841,67- 10,841,67- 10,948-11,948-1	Der participant     Der	If at were captured separately above). This cost does not account for what portion of costs may be covered by stillty incentives, nor include utility program addition costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant cost tests for the NGIA evaluation criteria. Note 2 you not provide the participant who participant will be used in the Participant control who have been added to the participant of the participant. Note 2 you for an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time)  M&V - Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate  RA max credit value as \$3/kg H2 feasible when the hydrogen production carbon Funding from IRA  Electrolyzer stack must be replaced after IO years	Year 1  S S S S Year 1  S S S Plan for this pilot is to take the IRA included here, to be accounted for included his 3rd party IRA funding it this input is per year of pilot life).  Year 1  S Tear 1  Tear 1	1500.00   1500.0	Year 2	Year 3 10.841674	\$ 10,64(674   \$ \$ 10,64(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ 10,8	10,64167- 10,64167- 10,64167- 10,841,67- 10,841,67- 10,841,67- 10,841,67- 10,841,67- 10,948-11,948-1	Der participant     Der	If at were captured separately above). This cost does not account for what portion of costs may be covered by stillty incentives, nor include utility program addition costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant cost tests for the NGIA evaluation criteria. Note 2 you not provide the participant who participant will be used in the Participant control who have been added to the participant of the participant. Note 2 you for an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
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PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time)  M&V - Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate  RA max credit value as \$3/kg H2 feasible when the hydrogen production carbon Funding from IRA  Electrolyzer stack must be replaced after IO years	Year 1  S S S S Year 1  S S S Plan for this pilot is to take the IRA included here, to be accounted for included his 3rd party IRA funding it this input is per year of pilot life).  Year 1  S Tear 1  Tear 1	1500.00   1500.0	Year 2   10,641,674   \$ 10,641,674	Year 3   10.841,674   10.841,674   10.841,674   10.841,674   10.941,	\$ 10,64(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 8,699,856   \$ \$ 8,699,856   \$ \$ 8,699,856   \$ \$ 8,699,856   \$ \$ 9,31674   \$ \$ 9,31674   \$ \$ 9,31674   \$ \$ 9,31674   \$ \$ 15% \$ 1478,035   \$ \$ 8,0000	10,64167- 10,64167- 10,64167- 10,841,67- 10,841,67- 10,841,67- 10,841,67- 10,841,67- 10,948-11,948-1	Der participant     Der	If at were captured separately above). This cost does not account for what portion of costs may be covered by stillty incentives, nor include utility program addition costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant cost tests for the NGIA evaluation criteria. Note 2 you not provide the participant who participant will be used in the Participant control who was a subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant Cost state for the NGIA evaluation criteria. Note 2 you have a subtracted from the costs are provided in the participant of the participant control in t
PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time)  M&V - Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate RA max credit value as \$3/kg H2 feasible when the hydrogen production carbon Funding from IRA Electrolyzer stack must be replaced after IO years  PV of stack replacement cost (\$	Year 1 S S S S S Year 1 S S S For this pilot is to take the IRA included here, to be accounted for included here to be accounted for instead this 3rd party IRA funding if this input is per year of pilot life).  Year 1 S S The above assumption assumes the	1500.00 \$50,000  10,641,674 \$ 10,641,674 \$ 10,641,674 \$ 8,699,856 \$ 8,699,856 \$ \$3,899,856 \$ \$3,	Year 2	Year 3   10.841674   10.8416	\$ 10,64(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 3,699,856   \$ \$ 6,699,856   \$ \$ 6,699,856   \$ \$ 7,000,000,000,000,000,000,000,000,000,0	10,64167 10,64167 10,64167 10,84167 Year 5 8,699,85 8,699,85 8,699,85 g from 10 years is Upfront Cost sort Year 5	Der participant	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Hose 2 some pilots taking a Direct that approach may see the utility covering all costs, with no upfront financial contribution from the participant. Note 2 you what the extension for the participant is not a some foreign and extension for the last fine years. Using the most recently available from the United States Bureau of Labor Statesists, as reported in December for each of the last fine years. Using the most recently available data.  or (38%) to make that more feasible.
PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time) M&V - Total Cost for Whole Pilot M&V - Total Cost for Whole Pilot Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Escalation Size C Calculations & Other Explanation:  Escalation rate RA max credit value as \$3/kg H2 feasible when the hydrogen production carbon Funding from IRA Electrolyzer stack must be replaced after IO years  PV of stack replacement cost (\$5.50)  Participant Non-Energy Costs, Size A	Year 1 S S S S S Year 1 S S S For this pilot is to take the IRA included here, to be accounted for included here to be accounted for instead this 3rd party IRA funding if this input is per year of pilot life).  Year 1 S S The above assumption assumes the	1500.00   \$50,000    10,641,674   \$   10	Year 2	Year 3 10.841674	\$ 10,64(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 3,859,856   \$ \$ 8,699,856   \$ \$ 8,699,856   \$ \$ 9,316,74   \$	10,64167 10,64167 10,64167 10,84167 Year 5 8,699,85 8,699,85 10,600 10 years is Upfront Cost sort year 5	Der participant	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Hose is come pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant. Note 2 you have been accounted to the program of the cost will be used in the fall items' consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  or (38%) to make that more feasible.
PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time)  M&V - Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate RA max credit value as \$3/kg H2 feasible when the hydrogen production carbon Funding from IRA Electrolyzer stack must be replaced after IO years  PV of stack replacement cost (\$	Year 1 S S S S S Year 1 S S S For this pilot is to take the IRA included here, to be accounted for included here to be accounted for instead this 3rd party IRA funding if this input is per year of pilot life).  Year 1 S S The above assumption assumes the	1500.00 \$50,000  10,641,674 \$ 10,641,674 \$ 10,641,674 \$ 8,699,856 \$ 8,699,856 \$ \$3,899,856 \$ \$3,	Year 2	Year 3   10.841674   10.8416	\$ 10,64(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 10,84(674   \$ \$ 3,699,856   \$ \$ 6,699,856   \$ \$ 6,699,856   \$ \$ 7,000,000,000,000,000,000,000,000,000,0	10,64167 10,64167 10,64167 10,84167 Year 5 8,699,85 8,699,85 8,699,85 g from 10 years is Upfront Cost sort Year 5	Der participant	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external hunding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfroot costs to participants who participate in the plot. This is a calculated value, where utility incentives are autoracted from the tools upfroot project costs. Direct Placingant Place costs will be used in the Participant Cast start for the NGIA evaluation criteria loss to starting a Direct Install approach may see the utility covering all costs will not upfront financial contribution from the participant. Note 2 you for an accutation rate, we see the valid provides an extensive and the participant contribution from the participant. Note 2 you for an accutation rate, we see the average of the 12-month percentage change in the full items' consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available date.  or (38%) to make that more feasible.
PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time) M&V - Total Cost for Whole Pilot M&V - Total Cost for Whole Pilot Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Escalation Size C Calculations & Other Explanation:  Escalation rate RA max credit value as \$3/kg H2 feasible when the hydrogen production carbon Funding from IRA Electrolyzer stack must be replaced after IO years  PV of stack replacement cost (\$5.50)  Participant Non-Energy Costs, Size A	Year 1 S S S S S Year 1 S S S For this pilot is to take the IRA included here, to be accounted for included here to be accounted for instead this 3rd party IRA funding if this input is per year of pilot life).  Year 1 S S The above assumption assumes the	1500.00   \$50,000    10,641,674   \$   10	Year 2	Year 3 10.841674	\$ 10,64(674) \$ \$ 10,84(674) \$ \$ 10,84(674) \$ \$ 10,84(674) \$ \$ 3,859,856 \$ \$ 8,699,856 \$ \$ 8,699,856 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 15% \$ \$ 1,476,035 \$ \$ 9,000 \$ \$ 1,476,035 \$ \$ 9,000 \$ \$ 1,476,035	10,64167 10,64167 10,64167 10,84167 Year 5 8,699,85 8,699,85 8,699,85 g from 10 years is Upfront Cost are year 5 3,882 Year 5 3,882 Year 5 3,882 Year 5 3,882 3,882 3,888,0	Ber participant Der participant USD (Kominal) Cost Unit: Der participant per year of pilot life Der participant per year of pilot life	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Hose is come pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant. Note 2 you have been accounted to the program of the cost will be used in the fall items' consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  or (38%) to make that more feasible.
PARTICIPANT PILOT	M-RETS Generator Registration Fee (One Time) M&V - Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size B Escalation rate RA max credit value as \$3/kg H2 feasible when the hydrogen production carbon Funding from IRA Electrolyzer stack must be replaced after IO years  PV of stack replacement cost (\$5  Participant Non-Energy Costs, Size A	Year 1 S S S S S Year 1 S S S For this pilot is to take the IRA included here, to be accounted for included here to be accounted for instead this 3rd party IRA funding if this input is per year of pilot life).  Year 1 S S The above assumption assumes the	1500.00   \$50,000    10,641,674   \$   10	Year 2	Year 3 10.841674	\$ 10,64(674) \$ \$ 10,84(674) \$ \$ 10,84(674) \$ \$ 10,84(674) \$ \$ 3,859,856 \$ \$ 8,699,856 \$ \$ 8,699,856 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 9,700,000 \$ \$ 15% \$ \$ 1,476,035 \$ \$ 9,000 \$ \$ 1,476,035 \$ \$ 9,000 \$ \$ 1,476,035	10,64167 10,64167 10,64167 10,84167 Year 5 8,699,85 8,699,85 8,699,85 g from 10 years is Upfront Cost are year 5 3,882 Year 5 3,882 Year 5 3,882 Year 5 3,882 3,882 3,888,0	Der participant	that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external hunding sources (e.g. RA etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfroot costs to participants who participate in the plot. This is a calculated value, where utility incentives are autoracted from the tools upfroot project costs. Direct Placingant Place costs will be used in the Participant Cast start for the NGIA evaluation criteria loss to starting a Direct Install approach may see the utility covering all costs will not upfront financial contribution from the participant. Note 2 you for an accutation rate, we see the valid provides an extensive and the participant contribution from the participant. Note 2 you for an accutation rate, we see the average of the 12-month percentage change in the full items' consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available date.  or (38%) to make that more feasible.

	Escalation rat	е	3.82%	3.82%	3.82%	3.82%	3.82% (for each pilot analysis ye	For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON-	Base electricity + clean power opt-in cost (included here to avoid counting e	electricity against emissions)						States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
ENERGY SOUTS	20-year (2025-2044) average electricity retail price (\$/kWh for C&l in MN Electricity cost for renewable electricity via Windsource (estimated net	4) \$	0.12 \$/kWh	(bas	e electricity price) d here because			
	charge)  Xcel Energy's Windsource subscriptions are available in 100 kilowatt-hour (kWh)	\$ hlacks	0.0065 \$/kWh	carb	on-free power must			
	The Windsource charge includes a per block charge of \$3.53, less a credit for further this cost is in addition to your current electric charges. If your electricity use is leading to the cost of the	el costs. For Commercial and industria	al demand customers, the	average net charge in 2	2021 was \$0.65 per block.	Actual costs will vary based or	n usage and monthly fuel credit variations.	
	Water consumption (kg water/kg H2 Water cost \$/metric ton of wate	2)	10 \$0.40					
	O&M as % of CapE		8%					
	Participant Non-Energy Savings, Size A	Year 1	473,960 \$	Year 2 473,960 \$	Year 3 473,960 \$	Year 4 473,960 \$	Year 5 USD (Nominal) Cost Unit: 473,960 per participant per year o	pilot life This includes any operating savings like water savings.
PARTICIPANT NON- ENERGY SAVINGS	Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C	\$	473,960 \$	4/3,960 \$	4/3,960 \$	473,960 \$ - \$	473,960 per participant per year o	
	Calculations & Other Explanation:	This area is used to include the IRA	A \$3/kg incentive, as it is a	n on-going cost savings	(not upfront).			
	Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B		20 years 20 years					
PILOT LIFE	Average Lifetime for Savings/Pilot Tech, Size C		20 years					
	Calculations & Other Explanation:							
NATURAL GAS	Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B		42,581 Dth/Parti 42,581 Dth/Parti	cipant				
ENERGY SAVINGS: AVG. Dth/	Avg. Dth/Participant Saved, Size C		42,581 Dth/Parti	cipant				
PARTICIPANT SAVED	Calculations & Other Explanation:	Assumes no H2 storage (that all H	H2 produced is consumed	at facility displacing nat	tural gas combustion).			
	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B		0.00 kWh/Part 0.00 kWh/Part		are kWh; could technically be o	ther non-NG. Avg. Non-Gas Fuel Units	Part. Saved will be used in the Participant Cost tests for the	IGIA evaluation criteria.
	Avg. Non-Gas Fuel Units/Part. Saved, Size C		0.00 kWh/Part	ticipant				
AVG. NON-GAS FUEL UNITS/ PART.	Avg. Additional Non-Gas Fuel Units/Part.Used, Size A		0.00 kWh/Part		Additional Non-Gas Fuel Units/P	art. Used will be used in the Participan	t Cost tests for the NGIA evaluation criteria.	
TOLL OILIS FART.	Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C		0.00 kWh/Part 0.00 kWh/Part					
	Calculations & Other Explanation:	Additional electricity usage is refle	ected in costs above so as	to not over-count emis	ssions.			
	Total Annual Dth Saved, Size A	Year 1	-	Year 2	Year 3 42.581	Year 4	Year 5	Natural gas energy savings that result from multiplying savings per participant times the total number of new participants in a given year
TOTAL ANNUAL Dth	Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C		-	-	42,581 42,581	42,581 42,581	- Dth 42,581 Dth	
SAVED	Calculations & Other Explanation:	,	•	•	•			
	Grid Mix Scenario	NREL.		Selec	t one of the listed grid mix scen	arios taking into account that:		
		Not leveraged for GHG evaluation,	which	•Utiliti	ies shall use electric-utility-spe	cific generation mix information for the	renewable natural gas facility when it is reasonably available.	When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from National Renewable Energy Laboratory
GRID MIX SCENARIO		From Frameworks Order: "Carbon- case basis, other carbon-free gene	free electricity includes de	edicated carbon-free ge	eneration, electricity purc	hased pursuant to a Commissi	on approved green-tariff program, and, for appro-	al on a case-by~
	Calculations & Other Explanation:	case sasis, exici carson nee gene	oration supported by a de-	monoton that the gr	comicase gas interiory or	and connected decemb gird is	not develocity impacted.	
		sed natural gas and/or electricity co	onsumption will be calcul	ated based on values a	bove. However, for pilots	where NGIA requires lifecycl	le GHG savings (e.g. RNG, hydrogen, carbon cap	ture) this section accounts for the lifecycle change in GHG emissions (per unit of participation).
	Lifecycle GHG Intensity, Size A Low	Year 1		Year 2	Year 3	Year 4	Year 5 kg CO2e/participant	Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act
	Expected High		0.00	0.00	0.00	0.00	0.00 kg CO2e/participant kg CO2e/participant	innovation (NGIA) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of piot programs and NGIA plans.
	Lifecycle GHG Intensity, Size B	Year 1		Year 2	Year 3	Year 4	Year 5	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Low Expected High		0.00	0.00	0.00	0.00	kg CO2e/participant  0.00 kg CO2e/participant kg CO2e/participant	
	High Lifecycle GHG Intensity, Size C	Year 1		Year 2	Year 3	Year 4	Kg CO2e/participant	
LIFECYCLE GHG	Low Expected	1681 1	0.00	0.00	0.00	0.00	kg CO2e/participant  0.00 kg CO2e/participant	
INTENSITY BY PROJECT SIZE	High		5.50	0.00	0.00	0.00	kg CO2e/participant	
TRODECT SIZE	Calculations & Other Explanation:		GHG Intensity		Usin	g this calculation structure is optional:	if modifications are needed, please use the hidden rows or n	ise with project leads.
		Size A	kg CO2e/Dth	Size B	Size C			
	Low Scenario Expected Scenario		0.00	0.00	0.00			
	High Scenario							

	Default Geologic Gas Emissions Factor	kg CO2e/Dth	66.14								
	From Frameworks Order. "Utilities may assume that hydrogen produced using cr NG Dth/year savings profiled will already be calculating GHG savings based on 6	arbon-free electricity has no greenhouse gas 6.14 factor.		luction but may have greenl	nouse gas emissions associat	ed with electricity used fo	or compression, transportation, blending, injec	tion, purification and pump	ng of water, or other purp	poses."	
OTHER PILOT-SPECI	FIC PARAMETERS (formerly 'General Parameters' in CIP Calculator):										
PEAK REDUCTION FACTOR	Peak Reduction Factor <u>Calculations &amp; Other Explanation</u>		1%   The estimated average annual el criteria.	ffect of the project on system peal	i. It is estimated to be 1% for energy e	fficiency pilots. The method fo	r other innovative resources should be considered in the	context of specific utility propos.	ls. Peak Reduction Factor will b	used in the Utility Cost and Non Participant Cost tests for the NGIA evaluation	
VARIABLE O&M	Variable O&M Cost, Applies to all project sizes Calculations & Other Explanation: Escalation rat	Values now linked directly back to planning assu Year 1 \$ Year 1 te In/a	mptions tab (possible given the combina Year 2  0.05 \$ 0.04  Year 2  -5.2505	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:  14 per Dth  15 per Dth  16 (for each pilot analysis year)	specific utility proposals. For transported to customers on evaluation criteria.	xample, resources like power- he distribution system. Variable	the value for other innovative resources should be considered in the context of Chi-hydrigen and RIKD may not decrease CBM costs as they also need to be CBM will be used in the URINF Cost and Non-Paticipane COst test for the NGIA change in the price of natural gas between 2023 through 2027 to all users in the Wes	
NON-GAS FUEL COST	Non-Gas (i.e., Electric) Fuel Cost Calculations & Other Explanation:	\$	USD (Nominal) Cost Unit:	The CIP methodology is used fo	or all resources other than strategic e al-time final market locational margin.	ectrification. The method for st al prices (LMP) at the Minnesoti	rategic electrification should be considered in the conte is Hub from January I, 2022 to December 3I, 2022 using c	xt of specific utility pilot proposal ata from Midwest Independent Sy	: stern Operator (MISO)		
NON-GAS FUEL LOSS FACTOR	Non-Gas Fuel Loss Factor  Calculations & Other Explanation:		8.22%				rategic electrification should be considered in the conte and weighting by the utilities '2017-2019 average retail s		. In the most recent CIP, Staff u	sed the weighted average of the most recent loss factors reported by Minnesota	
OTHER QUANTITATIV	E CDITEDIA-										
OTHER NON-GHG POLLUTANTS	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations 6. Other Explanation: Escalation rate from legislation	\$	USD Cost Unit: (0,004) per Dth (0,004) per Dth (0,004) per Dth (1,0004) per Dth (1,0004) per Dth	natural gas. The valuation of NO combustion. The natural gas fac cost values using escalation rat might use the urban value rathe median metropolitan fringe valu	x emissions comes from the same sc tor is calculated using the final envire e to adjust by observed inflation bets than the metropolitan fringe value. S ess for all non-GHG pollutants, as sho	urce, and the level of NOx emis immental cost values approved veen 2014 and 2021. Stakeholde fimilarly, a project targeting a lo wn in Table 1 of the Commission	sions come from GREET. The negative net savings show by Minnesota Public Utilities Commission (Commission) ars expressed a preference for allowing utilities to select	here reflects slightly higher cost. The factors are reported in 2021 different externality values for pid- the median. Utilities can make de- utilities may use the value most a	ncreases from NOx combustion follars in Table 2 below, which is ts targeting specific geographis ations such as these in their Ni pplicable for the pilot or measure.	accounts for increased NOs emissions from the combustion of Hydrogen in place of in than the savings achieved (from multiple types of emissions) from reduced gas were calculated by inflating the Commission's approved dollar per fron environmenta so er populations. For example, an energy efficiency project intellet targets are urban 2014 plans if they can provide justification for the charge, instead of requiring the use or 2014 to 2021. Using the most recently available data.	
		Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life			
	Net Direct Job Creation, Size A Net Direct Job Creation, Size B Net Direct Job Creation, Size C		1 20	0 6	6				125 # of jobs Utilities should consider both jobs create 241 # of jobs may be eliminated by proposed pilots.	Utilities should consider both jobs created by proposed pilots and jobs tha may be eliminated by proposed pilots.	
			1 (	0 24	27		35	37 2	# of jobs		
	Net Indirect Job Creation, Size A Net Indirect Job Creation, Size B Net Indirect Job Creation, Size C	Year 1	Year 2  O 1  O 0  O 0	Year 3  2	Year 4 4 19 17	Year 5			5 # of jobs 5 # of jobs	Utilities should consider both jobs created by proposed pilots and jobs the may be eliminated by proposed pilots.	
NET JOB CREATION	Net Induced Job Creation, Size A	Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life	# of iobs		
	Net Induced Job Creation, Size A		0 (	0 34	24		8		6 # of jobs		
	Net Induced Job Creation, Size A  Calculations & Other Explanation: Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.		v <sub>i</sub> (	≥ <sub> </sub> 18			~	2	3 # of jobs		
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	_			
DUDI IS	Public Co-Benefits, Size A Public Co-Benefits, Size B	\$	- \$ -	\$ -	\$ -	\$ -	per year per year	Quantifiable in some cases. If section below.	Quantifiable in some cases. If this metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative C section below.		
PUBLIC CO- BENEFITS	Public Co-Benefits, Size C	\$	- \$ -	\$ -	\$ -	\$ -	per year				
	Calculations & Other Explanation:										
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	_			
	Water Pollution, Size A Water Pollution, Size B	\$	- \$ - - \$ -	\$ -	\$ -	\$ -	per year per year	The legislation left the door of metric isn't quantifiable, there	en to quantify any costs and b s space for any qualitative con	enefits on water pollution. This might be quantifiable for some of the projects. If this nments in the Additional Qualitative Considerations section below.	
WATER POLLUTION	Water Pollution, Size C	\$	- \$ -	\$ -	\$ -	\$ -	per year				
	Calculations & Other Evaluation:										

ADDITIONAL OHALIT	ATIVE CONSIDERATIONS:
NGIA Utility	THE CONSIDERATIONS:
Perspective Notes:	
	It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and
Definition:	CIP quantification methods.
NGIA Participants'	
NGIA Participants' Perspective Notes: Definition:	
	It is expected that many of the elements of the participant perspective, with respect to the direct effect of pilots, will be quantifiable. For example, increased comfort in a home and health benefits from pilots that improve indoor air quality are two examples of benefits that may be difficult to quantify.
	May assist MN businesses in achieving GHG goals
NGIA .	
Nonparticipating Customers' Perspective Notes:	
Perspective Notes:	As with the utility perspective, the direct effects of pilot programs on non-
Definition:	As with the utility perspective, the direct effects of pilot programs on non- participating customers should be quantified in most cases and can be heavily informed by structural values.
Effects on Other Energy Systems	
Energy Systems and Energy	
Security: Definition:	NDIA invites the Commission to consider how innovative resources fir into the energy system with a broader perspective than effects on the zes utility and its customers Measures like strategic electrification specifically remaine eas utilities and the Commission to avoid negative effects on the electric system. Further the NDIA emonwers the
	NGIA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utility and its customers. Measures like strategic electrification specifically require gas utilities and the Commission to avoid negative effects on the electric system. Further, the NGIA empowers the Commission to consider with view report of costs and benefit into that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel markets.  Full made in Mr and reduces import of fuel from outside of MR hydrogen production may place burden on electric grid
	rue made in ew and reduces import of the non-outside or exit, nydrogen production may piece concern or executic grad
GHG Emissions	
Notes: Definition:	An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.
	entrominenta justice entects of the prior tenter to drive entestable, these may not be qualitation.
Other Pollution	
Notes: Definition:	
	include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.
Waste Reduction	
and Reuse Notes:	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes
Definition:	reduction of water use.
Policy Notes:	
	NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable
Definition:	resources. Reduces foals at throughput: increases use of renewable energy
Net Job Creation Notes:	
Definition:	An innovation plan must include, as applicable; projected local job impacts resulting from implementation of the plan." Utilizies should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.
Economic Development	and the control of t
Notes:	
Definition:	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.
	Likely that many projects will satisfy IRA labor requirements; hydrogen projects represent clean energy opportunity for workers from traditional fossil fuel jobs: will help MN build hydrogen workforce as hydrogen poised for growth due to IRA

Public Co-Benefits	
Notes: Definition:	
	There may be public benefits for certain pillots. For example, the NGA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.
Market	
Development	
Market Development Notes: Definition:	
	The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are realized
	May help NN businesses appeal to customers interested in sustainability
Direct Innovation	
Support Notes:	
Support Notes: Definition:	This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA.40 are unlikely to produce significant benefits on their own but are intended to
Support Notes: Definition:	lead to future opportunities.
Support Notes: Definition:	
Support Notes: Definition:	lead to future opportunities.
Support Notes: Definition:	lead to future opportunities.
Support Notes: Definition:	lead to future opportunities.
Support Notes: Definition:  Resource	lead to future opportunities. Opportunity for customers to leam about novel options for reducing GHGs from their systems
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Resource Scalability and Role in a Decarbonized System Notes: Definition:	lead to future opportunities.  Opportunity for customers to learn about novel options for reducing GHGs from their systems  While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed
Support Notes: Definition:  Resource Scalability and Role in a Decarbonized System Notes: Definition:	While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.
Support Notes: Definition:  Resource Scalability and Role in a Decarbonized System Notes: Definition:	lead to future opportunities.  Opportunity for customers to learn about novel options for reducing GHGs from their systems  While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed
Support Notes: Definition:  Resource Scalability and Role in a Decarbonized System Notes: Definition:	While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.
Support Notes: Definition:  Resource Scalability and Role in a Decarbonized System Notes: Definition:	While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.

N/∠ ZICF		Click here to go back to the list of all pilots					NGIA Pilot Profiles Workbook	
∕ICF	CNPO9 - Industrial Methane and Refrigerant Leak Reduction Program		T					
	Pilot Project Code:	CNP09 Industrial Methane and Refrigerant Leak						
	Pilot Project Name:	Reduction Program						
	Customer Class/ Sector:	C&I						
	Low-Income Community Benefit?	N						
	Target Area:	Territory-wide					<u></u>	
	Primary Innovative Resource Category:	Carbon Capture	Select primary Innovation Cat	egory. Others can be list	ed here:			
	Pilot Description:							
	CenterPoint Energy will hire a third-party vendor to conduct surveys	of participating industrial and large commercial facilities for	methane and refrigerant leaks I	pehind the customer gas	meter. After leaks a	re identified, Ce	nterPoint Energy will offer incentives to pa	rtially offset the cost of leak repair. Participating
	customers will also receive follow up surveys every two years during						9,	, , , ,
DESCRIPTION								
	Overview of Program/ Implementation Approach:							
	Large industrial and commercial CenterPoint Energy customers woul	ld be encouraged to participate in this program, targetting be	tween 25-50 new facilities per	year. In their first year of	f participation facilit	ies would receiv	re a 'sweep survey' to identify and quantify	behind the meter methane leaks, as well as planning
	support to establish a systematic leak repair program. These service							
	years of the 5-year NGIA framework, as an approach to testing how		ainty on the level of leaks, as we	ell as expectations that le	eak levels can vary w	videly between f	acilities. To that end, we have made conse	rvative estimates of leak reductions, and ultimately
	actual leak levels (and impact of repairs) will be documented through	h the initial and follow up leak sweeps.						
	Other Comments / Information:							
	Pilot sizes differ depending on number of participants							
	Due to data limitations, magnitude of GHG reduction from refrigeran	t leaks is not quantified for the purposes of this analysis, so e	stimate provided here could be	an underestimate of the	e total GHG savings	potential.		
	This program is expected to be accessible to large industrial and cor				•			
KEY PILOT-SPECIFIC	INPUTS:							
	Pilot Year	Year 1	Year 2	Year 3	Year 4	Year 5		
	Calendar Year	2024		2026	2027	2028		
	Participating Units, Size A	25		0	0		Incremental units added, annual (not cumulative).	
	Participating Units, Size B	25	25 25 25 25 25 50 50 50 50 50					
	Participating Units, Size C	ticipation = Facilities enrolling in program	50	50	50	50	I.	
	Calculations & Other Explanation:							
NUMBER OF		Participating units above only include first time of						
PARTICIPANTS		(sites from year 1 get sweep again in year 3 and y		rve to confirm that leak i	repairs have been m	ade, that		
		savings are maintained over time, and monitor th	e rate of new leak occurences.					
		2024	2025	2026	2027	2028		
	Total Number of Sweeps Per Year, Size A	25		2026	25	2028		
	Total Number of Sweeps Per Year, Size B	25		50	50	75		
	Total Number of Sweeps Per Year, Size C	50	50	100	100	150		
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Annual Total Utility Incremental Cost, Size A	\$ 436,676		210,904 \$	218,778 \$		total cost per year	These incremental utility costs are what will count against the NGIA budget cap fo
	Annual Total Utility Incremental Cost, Size B	\$ 436,676		653,589 \$	675,736 \$		total cost per year	this measure and will be used in the Utility Cost, and Non Participant Cost tests for
	Annual Total Utility Incremental Cost, Size C	\$ 804,351	\$ 830,651 \$	1,235,195 \$	1,277,928 \$	1,728,905	total cost per year	the NGIA evaluation criteria. This is the sum of utility admin costs to run pilot, any incentive funding to support project deployment, and/or the utility's annual revenu
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	requirement for capital investments made on select pilots
	Fixed O&M Cost, Size A	\$ 399,000			218,778 \$		total cost per year	Fixed O&M Cost is the result of adding up Total Project Delivery. Advertising and
	Fixed O&M Cost, Size B	\$ 399,000		615,914 \$	638,060 \$		total cost per year	Promotions, Utility Administration, Trade Ally Incentives, and Workforce
	Fixed O&M Cost, Size C	\$ 729,000		1,159,843 \$	1,202,577 \$		total cost per year	Development of Market Transformation Cost
								<del>_</del>
	Total Davis at Dalisson Circ. A	Year 1 \$ 374,000	Year 2 \$ 387,885 \$	Year 3 210,904 \$	Year 4 218,778 \$	Year 5	USD (Nominal) Cost Unit:	Total internal and external project delivery
	Total Project Delivery, Size A Total Project Delivery, Size B	\$ 374,000		210,904 \$ 590,914 \$	613,060 \$	226,947 839,352		lotal internal and external project delivery
	Total Project Delivery, Size B	\$ 699,000		1,129,843 \$	1,172,577 \$	1,623,554		†
				,	,	7	1	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	=
	Internal Project Delivery, Size A	\$ 49,000			22,947 \$		per year	CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" category above
	Internal Project Delivery, Size B	\$ 49,000 \$ 49,000			53,544 \$ 53,544 \$		per year	<del> </del>
	Internal Project Delivery, Size C	Ψ 49,000	φ 50,470 \$	01,904 \$	33,344 \$	33,150	per year	4
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	External Project Delivery, Size A	\$ 325,000	\$ 337,415 \$	188,625 \$	195,831 \$	203,312	per year	External vendor costs would include direct install costs where CNP reimburses the
	External Project Delivery, Size B	\$ 325,000	\$ 337,415 \$	538,930 \$	559,517 \$	784,202	per year	vendor. These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	External Project Delivery, Size C	\$ 650,000	\$ 674,830 \$	1,077,859 \$	1,119,033 \$	1,568,404	per year	

Year 2

25,000 \$ 25,000 \$ 30,000 \$

25,000 \$ 25,000 \$ 30,000 \$ Year 3

25,000 \$ 30,000 \$ Year 4

25,000 \$ 30,000 \$ Year 5

- per year 25,000 per year 30,000 per year

USD (Nominal) Cost Unit:

These costs are sub-set of the Utility "Fixed O&M Cost" category above.

Year 1

Advertising and Promotions, Size A Advertising and Promotions, Size B Advertising and Promotions, Size C

	Allocation of General Portfolio Costs, Size A Allocation of General Portfolio Costs, Size B	Year 1		Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit: per year per year	Share of portfolio level costs, including plan development costs, regulatory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs, Size C						per year per year	
	·		<u>'</u>	'			·	<del></del>
	Trade Ally Incentives, Size A	Year 1	- \$	Year 2 -   \$	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit: - per year	If applicable, include here the annual amount of trade ally incentives (e.g.
	Trade Ally Incentives Size B	\$	- \$			- \$	- per year	midstream program)
UTILITY PILOT COSTS	Trade Ally Incentives, Size C	\$	- \$	- \$	-	- \$	- per year	
		Year 1		Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
	Workforce Development or Market Transformation Cost, Size A	\$	- \$		- Itali 5			These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Workforce Development or Market Transformation Cost, Size B	\$	- \$	- \$	- :	- \$	per year	
	Workforce Development or Market Transformation Cost, Size C	\$	- \$	- \$	-	- \$	- per year	
		Year 1		Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
	Other Fixed O&M Cost, Size A	\$	- \$			- \$	- per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Other Fixed O&M Cost, Size B	\$	- \$	- \$	- :	- \$	- per year	
	Other Fixed O&M Cost, Size C	\$	- \$	- \$	-	- \$	- per year	
		Year 1		Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
	Total utility capital investment, Size A	\$	- \$			- \$	- per year	This tracks expectations for when this pilot would require capital investments from
	Total utility capital investment, Size B	\$	- \$	- \$	- :	- \$	- per year	the utility, if applicable. This will not directly feed into the incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue
	Total utility capital investment, Size C	\$	- \$	- \$	-	- \$	- per year	requirement resulting from these capital investments (shown helow)
		Year 1		Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
	Est. Annual Revenue Requirement for Capital Projects, Size A	\$	- \$			- \$	- per year	For capital projects, the incremental cost impact on the NGIA budget is the annual
	Est. Annual Revenue Requirement for Capital Projects, Size B	\$	- \$		- :	- \$	- per year	revenue requirement (return of and on capital additions), as well as the utility "Fixed  O&M Costs" captured above. This revenue requirement is calculated from the
	Est. Annual Revenue Requirement for Capital Projects, Size C	\$	- \$	-   \$	-	-   \$	- per year	magnitude & timing of conital investment contured shows based on expected
		Total	U	SD (Nominal) Cost Unit:				
	Est. Total Revenue Requirement for Capital Projects, Size A	\$		er year				The total revenue requirement is calculated from the magnitude & timing of total
	Est. Total Revenue Requirement for Capital Projects, Size B	\$		er year er year				capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment. This cost is
	Est. Total Revenue Requirement for Capital Projects, Size C	<b>a</b>	- p	er year				noted here for reference, it's not used to calculate any of the NGIA evaluation
		Year 1		Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
	Incentives, Size A	\$	37,676 \$		- :	- \$	- per year	This tracks total incentives paid directly to customers (customer rebates like
	Incentives, Size B Incentives, Size C	\$	37,676 \$ 75,351 \$	37,676 \$ 75,351 \$	37,676	37,676 \$	37,676 per year 75,351 per year	money, gift cards or other fungible payments, etc). Do not include here cost of customer benefits delivered directly to the customer by a program vendor (paying
	incentives, Size C	Ф	75,351 \$	75,551 \$	75,351	) /၁,၁၁۱ န	75,351 per year	for the cost of energy/GHG surlits or direct install measures) or making a canital
		Year 1		Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
	Incentives per Participant, Size A	\$	1,507 \$		#DIV/0!	#DIV/0!	#DIV/O! per participant per year	Incentives per participant is a function of total incentives paid directly to
	Incentives per Participant, Size B Incentives per Participant, Size C	\$	1,507 \$ 1,507 \$					customers.
	incontrol por randopart, oizo o	Ψ	,,,,,,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,007	,,,,,,,,	por participant por your	
		Year 1		Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
	Total Pilot Upfront Costs, Size A	\$	12,000 \$					This represents the total equipment and installation costs for technologies
	Total Pilot Upfront Costs, Size B	\$	12,000 \$	12,458 \$	12,934	13,428 \$	13,941 per participant	implemented as part of this pilot (specifically non-utility capital projects that were
	Total Pilot Upfront Costs, Size C	\$	12,000 \$	12,458 \$	12,934	13,428 \$	13,941 per participant	captured separately above). This cost does not account for what portion of costs  may be covered by utility incentives, nor include utility program admin costs.
		Year 1		Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
	Third Party Funding, Size A	\$	- \$	- \$	- :	- \$	- per participant	If there are expectations for external funding sources (e.g. IRA, etc) account for
	Third Party Funding, Size B	\$	- \$	- \$	- :	- \$	- per participant	those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
	Third Party Funding, Size C	\$	- \$	- \$	-	- \$	- per participant	Calculate any or the NGIA evaluation criteria.
	Description of source of external funding:	IRA, etc						
		Year 1		Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	
	Direct Participant Pilot Costs, Size A	\$	3,493 \$		3,882		4,302 per participant	This represents the upfront costs to participants who participate in this pilot. This is
TOTAL AND DIRECT PARTICIPANT PILOT	Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C	\$	3,493 \$ 3,493 \$	3,684 \$	3,882	4,088 \$	4,302 per participant	a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests
COSTS	Direct Participant Pilot Costs, Size C	<b>D</b>	3,493 \$	3,004 a	3,002	4,000 p	4,302 per participant	for the NGIA evaluation criteria. Note 1: some nilote taking a 'Direct Install' annonach
	Calculations & Other Explanation:	Year 1		Year 2	Year 3	Year 4	Year 5	
	Escalation rate		3.82%	3.82%	3.82%	3.82%	3.82% (for each pilot analysis year)	For an escalation rate, we use the average of the 12-month percentage change in
		Year 1		Year 2	Year 3	Year 4	Year 5	the "all items" consumer price index available from the United States Bureau of
	Cost of onsite sweep survey per customer:		\$7,000	\$7,267	\$7,545	\$7,833	\$8,132 Covered by Pilot	
	Cost for 1-year on-going vendor planning support:		\$6,000	\$6,229	\$6,467	\$6,714	\$6,971 Covered by Pilot	
	Assumed customer leak repair costs: Total Incentives for Customer Leak Repairs (per customer):		\$5,000 \$1,507	\$5,191 \$1,507	\$5,389 \$1,507	\$5,595 \$1,507	\$5,809 Customer cost, incentive in next row \$1,507 Covered by Pilot	
			ψι,507	Ψ1,307	ψ1,507	Ψί,σσ	ψι,σον σονείται by Γποτ	
	Leak repair incentives:	:	\$0.50 \$	/ annual therm savings				
	Particinant Non-Fherey Costs Size A	Year 1	_ [ ¢	Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:	This includes any increased in costs like equipment operating costs or increased
	Participant Non-Energy Costs, Size A	Year 1	-  \$	Year 2 -   \$	Year 3	Year 4		This includes any increased in costs like equipment operating costs or increased

PARTICIPANT NON- ENERGY COSTS	Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:	\$ - \$ \$ - \$	- : - : Year 2	\$ - \$ \$ - \$	- \$ - \$ Year 4		articipant per year of pilot life articipant per year of pilot life	water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
	Escalation rate	3.82%	3.82%	3.82%	3.82%		each pilot analysis year)	For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of
PARTICIPANT NON- ENERGY SAVINGS	Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C Calculations & Other Explanation:	Year 1  \$ - \$ \$ - \$ \$ - \$	Year 2 - :	Year 3  \$ - \$ \$ - \$ \$ - \$	Year 4  - \$ - \$ - \$	- per p	(Nominal) Cost Unit: articipant per year of pilot life articipant per year of pilot life articipant per year of pilot life	This includes any operating savings like water savings.
PILOT LIFE	Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B Average Lifetime for Savings/Pilot Tech, Size C Calculations & Other Explanation:	5 years 5 years There is little publicly available information on how long the being designed to build better understanding of how comm				d a range of 5 to 8 ye	ars might be appropriate. Pilot is	
	Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C Calculations & Other Explanation:	301 Dth/Parti 301 Dth/Parti 301 Dth/Parti	cipant	Note, only accounting for s	avings from the first s	weep at a given site	(given that these savings are assur	med to persist), not accounting for savings from follow-up sweeps.
NATURAL GAS ENERGY SAVINGS: AVG. Dth/ PARTICIPANT SAVED	Average 2022 Gas Consumption for CenterPoint's largest 200 customers  Assumed level of reduction in methane leaks	% of cust		ide pos higi On not Pra Oth (ht:	ntified so that actual resible, so this could be her).  e EPA estimate of metiexpect this level to be cities Guide: https://wher work in California, it tps://www.energy.ca.go	eductions can be re viewed as conserva hane leaks from indu e common at most in www.epa.gov/sites/d n the commercial se ov/sites/default/files	ported for NGIA savings. The RFI re- tive (i.e., GHG reduction impacts m istrial facilities pegged the rate at u dustrial facilities (EPA document L efault/files/2014-02/documents/ld ctor, has found leak rates ranging b //2021-05/CEC-500-2020-048.pd	petween 0.14% and 0.28% of total customer consumption
AVG. NON-GAS FUEL UNITS/ PART.	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C  Avg. Additional Non-Gas Fuel Units/Part.Used, Size A Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C	0.00 kWh/Part	icipant icipant icipant A icipant icipant	Avg. Additional Non-Gas Fuel Un	its/Part. Used will be used in	n the Participant Cost tes	ed will be used in the Participant Cost tests ts for the NGIA evaluation criteria.	
	Calculations & Other Explanation:	onservatively being assumed to be zero for now.  No electricity savings	is. However the por	teritiai volumes, savings, ai	id likeli100d 01 Tepali S	s are unclear for rem	gerant leaks, so these benefits are	
TOTAL ANNUAL Dth SAVED	Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C <u>Calculations &amp; Other Explanation:</u>	Year 1 7,535 7,535 7,535 15,070	7,535 7,535 15,070	Year 3 - 7,535 15,070	Year 4 - 7,535 15,070	Year 5  - Dth 7,535 Dth 15,070 Dth		Natural gas energy savings that result from multiplying savings per participant times the to
GRID MIX SCENARIO	Grid Mix Scenario	No Electricity Impact		Select one of the listed grid mix s	•		le natural gas facility when it is reasonably	available. When electric utility-specific information is not available, the filling gas utility another are facility in union a biology expectation of exchanging the electricity then is

Calculations & Other Explanation:

	This section does not apply to all pilot types. The GHG changes from decrease emissions (per unit of participation).	sed natural gas and/or electricity consumption w	vill be calculated based	on values above. However	, for pilots where NO	GIA requires lifecy	cle GHG savings (e.g. RNG, hydrogen, c	arbon capture) this section accounts for the lifecycle change in GHG
	Lifecycle GHG Intensity, Size A	Year 1	Year 2	Year 3	Year 4	Year 5		
	Low Expected	115,116	115,11	6 115,116	115,116	115,116	kg CO2e/participant kg CO2e/participant	Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGIA)
	High						kg CO2e/participant	plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations
	Lifecycle GHG Intensity, Size B	Year 1	Year 2	Year 3	Year 4	Year 5	kg CO2e/participant	and when determining the expected greenhouse gas reduction of pilot programs
	Expected High	115,116	115,11	6 115,116	115,116	115,116	kg CO2e/participant kg CO2e/participant	
	Lifecycle GHG Intensity, Size C	Year 1	Year 2	Year 3	Year 4	Year 5	Ing GOZe/participant	
	Low Expected	115 110	1641 2	115 116	115 110	115 110	kg CO2e/participant kg CO2e/participant	
LIFECYCLE GHG	Expected High	113,116	lio,ii	6 115,116	113,116	115,116	kg CO2e/participant	
INTENSITY BY PROJECT SIZE	Calculations & Other Explanation:							
		Conversions  Density of Methane at 60 degrees F and 14.7 psia	0.0192	Units kg/scf(MT/MCF)		natural gas (cf), the	en take the methane fraction of that ga	natural gas leaks (in Dth/year), convert that to a volume of is, calculate the mass of methane emissions (kg) to
		Methane 100 years GWP	29.8	GREET 2022 default to		atmosphere that h CO2e. This represe	ave been avoided, and apply a global w ents the GHG emission reduction from a	varming potential (GWP) to convert those units into kg avoiding these methane leaks. The natural gas combustion
		Methane Composition for sales gas	84.5%	AR6 %				ngs simply because the spreadsheet these numbers feed or this pilot (when there are no actual reductions in
			ī			combustion emiss		
	Default Geologic Gas Emissions Factor.	kg CO2e/Dth 66.14						
OTHER PILOT-SPECIF	IC PARAMETERS (formerly 'General Parameters' in CIP Calculator):							
	Peak Reduction Factor	1%					cy pilots. The method for other innovative resour	ces should be considered in the context of specific utility proposals. Peak Reduction
PEAK REDUCTION FACTOR	Calculations & Other Explanation:		Factor will be used in the Utili	ty Cost and Non Participant Cost	tests for the NGIA evalua	ation criteria.		
		Values now linked directly back to planning assumptions  Year 1	tab (possible given the comb Year 2	ination of formerly separate Ex Year 3	hibits P and N into a sir Year 4	igle file) Year 5	USD (Nominal) Cost Unit:	
VARIABLE O&M	Variable O&M Cost, Applies to all project sizes	\$ 0.05	\$ 0.0	0.04	\$ 0.04	\$ 0.04	per Dth	The CIP methodology is used for energy efficiency. However, the value for other innovative resources should be considered in the context of specific utility
THE SEE CO.	Calculations & Other Explanation:	Year 1	Year 2 -5.250	Year 3	Year 4	Year 5	T(5	proposals. For example, resources like power-to-hydrogen and RNG may not decrease O&M costs as they also need to be transported to customers on the
	Escalation rate	n/a	-5.250	-5.250%	-5.250%	-5.250%	(for each pilot analysis year)	Annual Escalation Rate calculated using the average percent change in the price of n.
NON-GAS FUEL	Non-Gas (i.e., Electric) Fuel Cost	\$ 44.14	USD (Nominal) Cost Uni	The CIP methodology is used	for all resources other ti	han strategic electrifica	tion. The method for strategic electrification sho	uld be considered in the context of specific utility pilot proposals.
COST	Calculations & Other Explanation:			equal to the average of daily	real-time final market loo	cational marginal prices	(LMP) at the Minnesota Hub from January 1, 202	2 to December 31, 2022 using data from Midwest Independent System Operator (MISO)
	Calculations & Other Explanation.							
NON-GAS FUEL LOSS	Non-Gas Fuel Loss Factor	8.22%	]	Staff used the weighted aver	age of the most recent lo			uld be considered in the context of specific utility pilot proposals. In the most recent CIP, wer's reported 2021 transmission and distribution loss factors and weighting by the
NON-GAS FUEL LOSS FACTOR		8.22%	]		age of the most recent lo			
		8.22%	]	Staff used the weighted aver	age of the most recent lo			
	Calculations & Other Explanation:	8.22%	]	Staff used the weighted aver	age of the most recent lo			
FACTOR	Calculations & Other Explanation:	8.22%	USD Cost Unit:	Staff used the weighted aver	age of the most recent lo			
FACTOR	Calculations & Other Explanation:			Staff used the weighted aver utilities '2017-2019 average r	age of the most recent lo etail sales P methodology. The facto	ess factors reported by the state of the sta	Minnesota Power, Xcel Energy, and Otter Tail Po	wer's reported 2021 transmission and distribution loss factors and weighting by the
FACTOR OTHER QUANTITATIV OTHER NON-GHG	Calculations & Other Explanation:  E CRITERIA:  Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B	\$ 0.37 \$ 0.37	USD Cost Unit: per Dth per Dth	Staff used the weighted aver utilities' 2017–2019 average r utilities' 2017–2019 average r Generally no change from CI in Table 2 below, which were expressed a preference for the urban value rather than the	age of the most recent ke etail sales  P methodology. The facts calculated by inflating th fllowing utilities to select	or is calculated using the commission's approved ifferent externality use. Similarly, a project t	Minnesota Power, Xcel Energy, and Otter Tail Po per final environmental cost values approved by M ed dollar per ton environmental cost values usin use for plots targeting specific geographies or y aggeing a low-income population uppit use a h	wer's reported 2021 transmission and distribution loss factors and weighting by the linnesota Public Utilities Commission (Commission). The factors are reported in 2021 dollars g escalation rate to adjust by observed inflation between 2014 and 2021 Stakeholders oppulations. For example, an energy efficiency project that targets an urban area might use gipt value rather than the mediat. Utilities can make deviations such as these in their NGIA
FACTOR OTHER QUANTITATIV	Calculations & Other Explanation:  E CRITERIA:  Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C	\$ 0.37 \$ 0.37	USD Cost Unit:	Staff used the weighted aver utilities' 2017–2019 average r utilities' 2017–2019 average r Generally no change from CI in Table 2 below, which were expressed a preference for the urban value rather than the	age of the most recent ke etail sales  P methodology. The facts calculated by inflating th fllowing utilities to select	or is calculated using the commission's approved ifferent externality use. Similarly, a project t	Minnesota Power, Xcel Energy, and Otter Tail Po per final environmental cost values approved by M ed dollar per ton environmental cost values usin use for plots targeting specific geographies or y aggeing a low-income population uppit use a h	wer's reported 2021 transmission and distribution loss factors and weighting by the  innesota Public Utilities Commission (Commission). The factors are reported in 2021 dollars  g escalation rate to adjust by observed inflation between 2014 and 2021 Stakeholders  oppolations. For example, an energy efficiency project that targets an urban area might use
FACTOR OTHER QUANTITATIV OTHER NON-GHG	Calculations & Other Explanation:  E CRITERIA:  Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B	\$ 0.37 \$ 0.37	USD Cost Unit: per Dth per Dth	Staff used the weighted aver utilities' 2017–2019 average r utilities' 2017–2019 average r Generally no change from CI in Table 2 below, which were expressed a preference for the urban value rather than the	age of the most recent ke etail sales  P methodology. The facts calculated by inflating th fllowing utilities to select	or is calculated using the commission's approved ifferent externality use. Similarly, a project t	Minnesota Power, Xcel Energy, and Otter Tail Po per final environmental cost values approved by M ed dollar per ton environmental cost values usin use for plots targeting specific geographies or y aggeing a low-income population uppit use a h	wer's reported 2021 transmission and distribution loss factors and weighting by the linnesota Public Utilities Commission (Commission). The factors are reported in 2021 dollars g escalation rate to adjust by observed inflation between 2014 and 2021 Stakeholders oppulations. For example, an energy efficiency project that targets an urban area might use gipt value rather than the mediat. Utilities can make deviations such as these in their NGIA

	Net Direct Job Creation, Size A	Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life 9
	Net Direct Job Creation, Size A  Net Direct Job Creation, Size B  Net Direct Job Creation, Size C		5 5 5	5 8	8 8 4		1 11 5	10
	Net Indirect Job Creation, Size A	Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life  5
	Net Indirect Job Creation, Size B Net Indirect Job Creation, Size C		1 2 3	1 2	2 2 4		2 5	8 1 # of jobs consider both 17 1 # of jobs possed all
NET JOB CREATION	Net Induced Job Creation, Size A	Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life 7
	Net Induced Job Creation, Size A Net Induced Job Creation, Size A Net Induced Job Creation, Size A		2 2 3	5 5	3 3 5		7	# of jobs 22 # of jobs
	<u>Calculations &amp; Other Explanation:</u> Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.							
	Public Co-Benefits, Size A	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Public Co-Benefits, Size A Public Co-Benefits, Size B	\$ -	\$ -	\$ -		\$ -	per year per year	Quantifiable in some cases. If this metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative Considerations section below.
PUBLIC CO-BENEFITS		\$ -	\$ -	\$ -	\$ -	\$ -	per year	
	Calculations & Other Explanation:							
	Water Pollution, Size A	Year 1 -	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per year	The legislation left the door open to quantify any costs and benefits on water
WATER POLLUTION	Water Pollution, Size B Water Pollution, Size C	\$ -	\$ -	\$ -	\$ -	\$ -	per year per year	pollution. This might be quantifiable for some of the projects. If this metric isn't quantifiable, there is space for any qualitative comments in the Additional
ADDITIONAL QUALITA	Calculations & Other Explanation:  ITIVE CONSIDERATIONS:							Cualitative Considerations section below.
NGIA Utility Perspective Notes:	It is expected that most of the utility perspective costs and benefits will be							
Definition:	quantifiable with and should be heavily informed by the structural values and CIP quantification methods.							
NGIA Participants' Perspective Notes:								
Definition:	It is expected that many of the elements of the participant perspective, with n	espect to the direct effect of pilots, will be quantil	fiable and will rely on the str	uctural values. Add here	any information relat	ed to some direct	effects of pilots on participants that may	not be easily quantifiable. For example, increased
	comfort in a home and health benefits from pilots that improve indoor air qua May assist MN businesses in achieving GHG goals; may improve workplace safe		cult to quantify.					
NGIA								
Nonparticipating Customers'								
Perspective Notes:	As with the utility perspective, the direct effects of pilot programs on non-							
Definition:	participating customers should be quantified in most cases and can be heavily informed by structural values.							
Effects on Other Energy Systems and								

	NGIA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the electric system.  Further, the NGIA empowers the Commission to consider a wide variety of "costs and benefits that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel markets.	
GHG Emissions		
Notes:		
Definition:	An innovation plan must include the total lifecycle GHG emission-approved GHG accounting framework and GHG externality values. Note that this row also calls for	
	discussion of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.  Quantified benefits do not include avoided refrigerant leaks	
Other Pollution		
Notes: Definition:		
Denindon.	Include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.	
Waste Reduction and Reuse Notes:		
	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA.	
Definition:	Includes reduction of water use.	
Policy Notes:		
	NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable	
Definition:	resources.	
	Reduces fossil gas throughput	
Net Job Creation		
Notes:	An innovation plan must include, as applicable, "projected local job impacts	
	resulting from implementation of the plan." Utilities should consider both jobs	
	created by proposed pilots and jobs that may be eliminated by proposed	
Definition:	pilots.	
Economic Development Notes:		
	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide	
	additional economic benefits.	
Public Co-Benefits		
Notes: Definition:		
	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.	
Market Development		
Notes: Definition:		
	The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are realized	
	May help MN businesses appeal to customers interested in sustainability	
Direct Innovation		
Support Notes: Definition:		
Беннион.	This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA,40 are unlikely to produce significant benefits on their own but are intended to lead to future opportunities.	

Opportunity for customers to learn about novel options for reducing GHGs from their systems; will reduce uncertainty about GHG potential of leak detection programs

Resource Scalability and Role in a
Decarbonized
System Notes:
Definition:

While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.

Even in full decarbonized system likely to have some methane gas and continuing need for leak detection

\ ∕ICF	CNP10 - Urban Tree Carbon Offset Program	Click here to go back to the list of all pilots			NGIA Pilot Profiles Workbook	
	Pilot Project Code:	CNP10				
	Pilot Project Name:	Urban Tree Carbon Offset Program				
	Customer Class/ Sector:	C&I & Res				
	Low-Income Community Benefit?	Y				
	Target Area: Primary Innovative Resource Category:	Urban Carbon Capture	Select primary Innovation Category. Others ca	an be listed here:		
	Trimaly milovative resource eategery.	our bon oup care				
	Pilot Description:					
	Local non-profit Green Minneapolis, which is working in partnership with the M CenterPoint Energy customers.	Minneapolis Park and Recreation Board ("MPRB"), is	selling registered City Forest Credits for trees pla	anted in Minneapolis between 2019 an	id 2021. Under this pilot, CenterPoint Energy	will purchase these credits and retire them on behalf of
	Contain on the Energy Containers.					
DESCRIPTION						
	Overview of Program/ Implementation Approach:					
	Trees planted in area with conditions of project-defined high inequity to trees	s, such as at schools, affordable or subidized housi	ng, formerly redlined neigbothoods, areas with hi	gh property vacancy rates, or areas wi	ith high proportion of renters.	
	Other Comments / Information:					
	Pilot size determined by number of credits purchased. Sizes A, B, and C repres	sent 25%, 50%, and 100% of the credits expected t	o be available from the RFI respondent, respecti	vely.		
EY PILOT-SPECIFIC	INPUTS:					
	Pilot Year	Year 1	Year 2 Year 3	Year 4 Year 5		
	Calendar Year	20		2026 2027 203		
NUMBER OF	Participating Units, Size A Participating Units, Size B	80		900 950 100 1800 1900 200		
PARTICIPANTS	Participating Units, Size C	320	3400	3600 3800 400		
		Carbon credits purchased	of also and the consequence of a second section of the sect	DEL	_	
	Calculations & Other Explanation:	Sizes A, B, and C represent 25%, 50%, and 100%	of the credits expected to be available from the	e RFI respondent, respectively.		
		Year 1	Year 2 Year 3	Year 4 Year 5	USD (Nominal) Cost Unit:	
	Annual Total Utility Incremental Cost, Size A	\$ 45,00	0 \$ 50,894 \$ 58,	097 \$ 66,759 \$ 75,030	total cost per year	These incremental utility costs are what will count against the NGIA budget cap for this measure and will be used in the Utility Cost, a
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C	\$ 80,20 \$ 150,60	0 \$ 91,694 \$ 105	,797 \$ 122,809 \$ 139,030	O total cost per year O total cost per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of utility admin costs to run pilot, any incentive funding to supple deployment, and/or the utility's annual revenue requirement for capital investments made on select pilots.
	Allifold Folds Other Historian Cost, 5126 C	100,00	0 9 173,254 9 20	1,137 \$ 234,303 \$ 207,030	·	
	Fixed O&M Cost, Size A	Year 1 \$ 45,00	Year 2 Year 3 D \$ 50,894 \$ 58,	Year 4 Year 5 097 \$ 66,759 \$ 75,030	USD (Nominal) Cost Unit:  total cost per year	Fixed O&M Cost is the result of adding up Total Project Delivery, Advertising and Promotions, Utility Administration, Trade Ally Incenti
	Fixed O&M Cost, Size A Fixed O&M Cost, Size B	\$ 80,20		797 \$ 122,809 \$ 139,030		Workforce Development of Market Transformation Cost
	Fixed O&M Cost, Size C	\$ 150,60	0 \$ 173,294 \$ 20	1,197 \$ 234,909 \$ 267,030	total cost per year	
		Year 1	Year 2 Year 3	Year 4 Year 5	USD (Nominal) Cost Unit:	
	Total Project Delivery, Size A	\$ 45,00	0 \$ 50,894 \$ 58,	097 \$ 66,759 \$ 75,030	D per year	Total internal and external project delivery
	Total Project Delivery, Size B Total Project Delivery, Size C	\$ 80,20 \$ 150,60		,797 \$ 122,809 \$ 139,030 1,197 \$ 234,909 \$ 267,030	O per year O per year	
	Total Project Delivery, Size C	\$ 150,600	0 \$ 173,294 \$ 20	1,197 \$ 234,909 \$ 267,030	per year	<u> </u>
		Year 1	Year 2 Year 3	Year 4 Year 5	USD (Nominal) Cost Unit:	
	Internal Project Delivery, Size A Internal Project Delivery, Size B	\$ 9,800 \$ 9,800		397 \$ 10,709 \$ 11,030 397 \$ 10,709 \$ 11,030	O per year O per year	CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Internal Project Delivery, Size C	\$ 9,80		397 \$ 10,709 \$ 11,030	per year	
		Year 1	V2 V2	V4 VP	USD (Nominal) Cost Unit:	
	External Project Delivery, Size A	\$ 35,20	Year 2 Year 3  > \$ 40,800 \$ 47,	Year 4 Year 5 700 \$ 56,050 \$ 64,000	per year	External vendor costs would include direct install costs where CNP reimburses the vendor. These costs are sub-set of the Utility 'Fixe
	External Project Delivery, Size B	\$ 70,40		400 \$ 112,100 \$ 128,000	per year	Cost" category above.
	External Project Delivery, Size C	\$ 140,80	0 \$ 163,200 \$ 190,	800 \$ 224,200 \$ 256,000	per year	
		Year 1	Year 2 Year 3	Year 4 Year 5	USD (Nominal) Cost Unit:	
	Advertising and Promotions, Size A	\$ -	\$ - \$	- \$ - \$ - - \$ - \$ -	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Advertising and Promotions, Size B Advertising and Promotions, Size C	\$ -	\$ - \$	- \$ - \$ - - \$ - \$ -	per year per year	<del>-</del>
		1.5	1			
	Allowed and Consent Dentalis Contaction A	Year 1	Year 2 Year 3	Year 4 Year 5	USD (Nominal) Cost Unit:	Share of portfolio level costs, including plan development costs, regulatory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size A Allocation of General Portfolio Costs, Size B				per year per year	anale or portrollo level costs, including plan development costs, regulatory costs, and general portrollo costs
	Allocation of General Portfolio Costs, Size C				per year	
		Year 1	Year 2 Year 3	Year 4 Year 5	USD (Nominal) Cost Unit:	
	Trade Ally Incentives, Size A	\$ -	\$ - \$	- \$ - \$ -	per year	If applicable, include here the annual amount of trade ally incentives (e.g. midstream program)
	Trade Ally Incentives, Size B	\$ -	\$ - \$	- \$ - \$ -	per year	
	Trade Ally Incentives, Size C	> -	- 2	- \$ - \$ -	per year	
UTILITY PILOT		Year 1	Year 2 Year 3	Year 4 Year 5	USD (Nominal) Cost Unit:	
COSTS	Workforce Development or Market Transformation Cost, Size A Workforce Development or Market Transformation Cost, Size B	\$ -	\$ - \$ - \$	- \$ - \$ - - \$ - \$ -	per year per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Workforce Development or Market Transformation Cost, Size B Workforce Development or Market Transformation Cost, Size C	\$	\$ - \$	- \$ - \$ -	per year per year	+
				<u> </u>		<del>_</del>
	Other Fixed O&M Cost, Size A	Year 1	Year 2 Year 3	Year 4 Year 5	USD (Nominal) Cost Unit:	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Other Fixed O&M Cost, Size B	\$ -	\$ - \$	- \$ - \$ -	per year	The second secon
	Other Fixed O&M Cost. Size C	s -	\$ - \$	- S - S -	per year	

	Total utility capital investment, Size A	\$	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the
	Total utility capital investment, Size B Total utility capital investment, Size C	\$		- \$ - \$	- \$ - - \$ -	\$ - \$ -	\$ - \$ -	per year per year	incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital investments (shown below).
			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	_
	Est. Annual Revenue Requirement for Capital Projects, Size A Est. Annual Revenue Requirement for Capital Projects, Size B			- \$ - \$	- \$ - - \$ -	s -	\$ - \$ -	per year per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as well as the utility "Fixed O&M Costs" captured above. This revenue requirement is calculated from the magnitude & timing of capital investment
	Est. Annual Revenue Requirement for Capital Projects, Size C	\$		- \$	- \$ -	\$ -	\$ -	per year	captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
	Est. Total Revenue Requirement for Capital Projects, Size A	\$	Total	USD (Nominal) Cost U - per year	nit:	The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected			
	Est. Total Revenue Requirement for Capital Projects, Size B Est. Total Revenue Requirement for Capital Projects, Size C	\$		- per year - per year					measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
	Est. Total Revenue Requirement for Capital Projects, Size C	•							
	Incentives, Size A	\$	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc). Do not include
	Incentives, Size B Incentives, Size C	\$		- \$	- \$ -	\$ -	\$ -	per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG sudits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will
	incentives, Size C	\$		- 5	- 5 -	\$ -	\$ -	per year	he used in the Particinant Cost tests for the NGIA evaluation criteria
	Incentives per Participant, Size A	Ś	Year 1	- \$	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size B	\$		- \$	- \$ -		\$ -	per participant per year	
	Incentives per Participant, Size C	\$		- \$	- \$ -	\$ -	\$ -	per participant per year	1
	Calculations & Other Explanation:								
	Expected price per credit	(\$/credit): \$		44 \$	48 \$ 55	3 \$ 59	\$ 64	4 Assuming upper end of cost range provide	ed by the RFI respodent for each year
	Total Pilot Upfront Costs, Size A	S	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital
	Total Pilot Upfront Costs, Size B	\$			48 \$ 50		\$ 64	4 per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
	Total Pilot Upfront Costs, Size C	\$		44 \$	48 \$ 5	5 59	\$ 64	per participant	
	Third Party Funding, Size A	ė	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per participant	If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's
TOTAL AND DIRECT	Third Party Funding, Size B	\$		- \$	- \$ -	\$ -	\$ -	per participant	not used to calculate any of the NGIA evaluation criteria.
PARTICIPANT PILOT	Third Party Funding, Size C Description of source of external funding:	IRA, etc		- \$	- \$ -	\$ -	\$ -	per participant	
COSTS	Second of source of external funding.	117,010							
	Direct Participant Pilot Costs, Size A	\$	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per participant	This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted
	Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C	\$		- \$ - \$	- \$ - - \$ -	\$ -	\$ - \$ -	per participant per participant	from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a 'Direct Install' approach may see the utility covering all costs, with no upfront financial contribution from the participant.
	· ·							R. F. S. F.	_
	Calculations & Other Explanation:  Esca	alation rate	Year 1 3.1	Year 2 82% 3.	Year 3 82% 3.82	Year 4 % 3.82%	Year 5 3.82	% (for each pilot analysis year)	For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
									States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
	Participant Non-Energy Costs, Size A	ė	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the
PARTICIPANT NON-	Participant Non-Energy Costs, Size B	\$		- \$	- \$ -	\$ -	\$ -	per participant per year of pilot life	Participant Cost tests for the NGIA evaluation criteria.
ENERGY COSTS	Participant Non-Energy Costs, Size C	\$		- \$	- \$ -	\$ -	\$ -	per participant per year of pilot life	
	Calculations & Other Explanation:		Year 1	Year 2	Year 3	Year 4	Year 5	<del></del>	
	Esca	alation rate	3.1	82% 3.	82% 3.82	% 3.82%	3.82	(for each pilot analysis year)	For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Participant Non-Energy Savings, Size A	\$	149.5	- \$	- \$ -	\$ -	\$ -	per participant per year of pilot life	This includes any operating savings like water savings.
PARTICIPANT NON- ENERGY SAVINGS	Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C	\$		- \$ - \$	- \$ - - \$ -	\$ -	\$ -	per participant per year of pilot life per participant per year of pilot life	<u></u>
ENERGY SAVINGS	Calculations & Other Explanation:	-		•	•				<b>-</b>
	Salculations & Other Explanation.								
	Average Lifetime for Savings/Pilot Tech, Size A			1 years					
PILOT LIFE	Average Lifetime for Savings/Pilot Tech, Size B Average Lifetime for Savings/Pilot Tech, Size C			1 years					
PILOT LIFE	Calculations & Other Explanation:	0"		<del></del>					
	Calculations & Other Explanation.	Offset pu	rchases only reduce emissions for t	ne year they are purchased	. New offsets need to be p	surchased again for	subsequent yea	ars.	
NATURAL GAS	Avg. Dth/Participant Saved, Size A		C	0.00 Dth/Participant					
<b>ENERGY SAVINGS:</b>	Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C			0.00 Dth/Participant 0.00 Dth/Participant					
AVG. Dth/ PARTICIPANT									
SAVED	Calculations & Other Explanation:								
	Avg. Non-Gas Fuel Units/Part. Saved, Size A		C	0.00 kWh/Participant	Units are kWh; could tech	nically be other non-NG	Avg. Non-Gas Fue	el Units/Part. Saved will be used in the Participant Cost	tests for the NGIA evaluation criteria.
	Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C		C	0.00 kWh/Participant 0.00 kWh/Participant					
	G								

AVG. NON-GAS FUEL UNITS/ PART.	Avg. Additional Non-Gas Fuel Units/Part.Used, Size A Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C Calculations & Other Explanation:	O.00 kWh/Participant Avg. Additional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  O.00 kWh/Participant  kWh/Participant
TOTAL ANNUAL Dth SAVED	Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C Calculations & Other Explanation:	Year 1         Year 2         Year 4         Year 5           0.00         0.00         0.00         0.00         Dth           0.00         0.00         0.00         0.00         Dth           0.00         0.00         0.00         0.00         Dth   Natural gas energy savings that result from multiplying savings per participant times the total number of new participants in a given year of new participants in a give
GRID MIX SCENARIO	Grid Mix Scenario  Calculations & Other Explanation:	No Electricity Impact  Select one of the listed grid mix scenarios taking into account that  Utilities shall use electric-utility-specific generation mix information for the renewable natural gas facility when it is reasonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from that it is a substituted in a state of the stat
LIFECYCLE GHG INTENSITY BY PROJECT SIZE	This section does not apply to all pilot types. The GHG changes fro Lifecycle GHG intensity, Size A Low Expected High Lifecycle GHG Intensity, Size B Low Expected High Lifecycle GHG Intensity, Size C Low Expected High Lifecycle GHG Intensity, Size C Low Capacity Companies C Low Capacity C Low	Wear 1 Year 2 Year 3 Year 4 Year 5  Year 3 Year 4 Year 5  Year 6 Year 6  Year 7 Year 9  Year 9  Year 1 Year 9  Year 1 Year 2 Year 3 Year 4 Year 5  Year 1 Year 2 Year 3 Year 4 Year 5  Year 1 Year 2 Year 3 Year 4 Year 5  Year 1 Year 2 Year 3 Year 4 Year 5  Year 3 Year 4 Year 5  Year 1 Year 2 Year 3 Year 4 Year 5  Year 3 Year 4 Year 5  Year 4 Year 5  Year 4 Year 5  Year 6  Year 7  Year 9
OTHER PILOT-SPECI	IFIC PARAMETERS (formerly 'General Parameters' in CIP Calculator):  Peak Reduction Factor  Calculations & Other Explanation:	The estimated average annual effect of the project on system peak. It is estimated to be TK for energy efficiency pilots. The method for other innovative resources should be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the Utility Cost and Non Participant Cost tests for the NGIA evaluation criteria.
\		
VARIABLE O&M	Variable O&M Cost, Applies to all project sizes <u>Calculations &amp; Other Explanation</u> :	Values now linked directly back to planning assumptions tab (possible given the combination of formerly separate Exhibits P and N into a single file)  Year 1 Year 2 Year 3 Year 4 Year 5  O.05 \$ 0.04
		Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:  \$ 0.05 \$ 0.04 \$ 0.
NON-GAS FUEL	Calculations & Other Explanation:  Non-Gas (i.e., Electric) Fuel Cost	Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:  The CP methodology is used for energy efficiency. However, the value for other innovative resources should be considered in the context of apporting using for energy efficiency. However, the value for other innovative resources should be considered in the context of apporting using for energy efficiency. However, the value for other innovative resources should be considered in the context of apporting used for energy efficiency. However, the value for other innovative resources should be considered in the context of apporting used for energy efficiency. However, the value for other innovative resources should be considered in the context of apporting used for energy efficiency. However, the value for other innovative resources should be considered in the context of apporting used for energy efficiency. However, the value for other innovative resources should be considered in the context of apporting used for energy efficiency. However, the value for other innovative resources should be considered in the context of apporting used for energy efficiency. However, the value for other innovative resources should be considered in the context of apporting used for energy efficiency. However, the value for other innovative resources should be considered in the context of apporting used for energy efficiency. However, the value for other innovative resources should be considered in the context of apporting used for energy efficiency. However, the value for other innovative resources should be considered in the context of apporting used for energy efficiency. However, the value for energy e
NON-GAS FUEL COST	Calculations & Other Explanation:  Non-Gas (i.e., Electric) Fuel Cost Calculations & Other Explanation:  Non-Gas Fuel Loss Factor Calculations & Other Explanation:	Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:    The CP methodology is used for all resources other than strategic electrification. The method for strategic electrification is should be considered in the context of specific utility proposals. For example, resources the power-to-hydrogen and RND may not decrease CSM costs as they also need to be remarked from the Utility cost and Nom Provide participant Cost tests of a specific utility proposals. For example, resources the power-to-hydrogen and RND may not decrease CSM costs as they also need to be remarked to generate the Utility cost and Nom Providence Cost tests for the NIAL evaluation criteria. Note, to calculate this metric, you can make one cost estimate for year I and then use the escalation rate to estimate each Annual Escalation Rate calculated using the average percent change in the price of natural gas between 2023 through the context of specific utility pilot proposals.    S

	Net Direct Job Creation, Size B		1 1		1		1	5	# of jobs	may be eliminated by proposed pilots.
	Net Direct Job Creation, Size C		1 1		2	2	2	7	# of jobs	
	Net Indirect Job Creation, Size A	Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life	# of jobs	Utilities should consider both jobs created by proposed pilots and jobs that
	Net Indirect Job Creation, Size B Net Indirect Job Creation, Size C		0 0	(	0	C		0	# of jobs # of jobs	may be eliminated by proposed pilots.
			-		_		-		,	
NET JOB CREATION	Net Induced Job Creation, Size A	Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life	# of jobs	
	Net Induced Job Creation, Size A Net Induced Job Creation, Size A		0 0	(	0		1	2	# of jobs # of jobs	
	Calculations & Other Explanation:									
	Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.									
	Public Co-Benefits, Size A	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per year		his metric isn't quantifiable, the	re is space for any qualitative comments in the Additional Qualitative
PUBLIC CO- BENEFITS	Public Co-Benefits, Size B Public Co-Benefits, Size C	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	per year per year	Considerations section below.		
BENEFITO	Calculations & Other Explanation:									
	Water Pollution, Size A	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	The feetball of the state of th		enefits on water pollution. This might be quantifiable for some of the projects. If
WATER ROLLITION	Water Pollution, Size B Water Pollution, Size C	\$ -	\$ -	\$ -	\$ -	\$ -	per year per year			metits on water pollution. This might be quantitiable for some of the projects. If comments in the Additional Qualitative Considerations section below.
WATERFOLLOTION	Calculations & Other Explanation:	•	1	•	1	-	F /			
ADDITIONAL QUALIT	FATIVE CONSIDERATIONS:									
NGIA Utility										
Perspective Notes:	It is expected that most of the utility perspective costs and benefits will be									
Definition:	quantifiable with and should be heavily informed by the structural values and CIP quantification methods.									
NGIA Participants'										
Perspective Notes: Definition:	It is expected that many of the elements of the participant perspective, with res	spect to the direct effect of pilots, will be quantifiab	le and will rely on the structur	al values. Add here any	information relate		t effects of pilots on participants that may	not be easily quantifiable. Fo	example, increased com	fort
	in a home and health benefits from pilots that improve indoor air quality are two	o examples of benefits that may be difficult to quan	tify.							
NGIA.										
Nonparticipating Customers'										
Perspective Notes:	As with the utility perspective, the direct effects of pilot programs on non-									
Definition:	participating customers should be quantified in most cases and can be heavily informed by structural values.									
	Shade can reduce cooling and heating costs for nearby buildings									
Effects on Other										
Energy Systems and Energy										
Security: Definition:	MGIA invites the Commission to consider liquiding and the consults of the the	onormy system with a broader personally a throad	acts on the gas will be and it	vetomore Massures D	o etratoria electri	fication appeals	ally require me utilities and the Commission	n to avoid nagative effects	the electric aveters	
	NGIA invites the Commission to consider how innovative resources fit into the c Further, the NGIA empowers the Commission to consider a wide variety of "cos Shade can reduce need for cooling in summer months	energy system with a broader perspective than effi- sts and benefits that may be expected under a plan,	one of which is a reduction of the control of the c	of reliance on imported	e strategic electri resources and na	ication specifica tional fuel marke	any require gas utilities and the Commissio ts.	<del>n to a</del> void negative effects of	rtne electric system.	
	onade carrieduce need for cooling in summer months									
GHG Emissions										
Notes: Definition:	An innovation plan must include the total lifecycle GHG emissions that the utilit									

	discussion of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.
	docussion of any entratinensa pouce effects on the prior related to the entrations, these may not be qualitatible.
Other Pollution	
Other Pollution Notes: Definition:	
	Include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.
	Trees can reduce urban heat effects, reduce stormwater runoff, prevent air pollution from reaching homes; pilot targets areas of low tree coverage which correspond with poverty
Waste Reduction	
and Reuse Notes:	
Definition:	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes reduction of water use.
Demindor.	To Substitution of Indian doct.
Policy Notes:	NGIA is intended to help the state achieve certain environmental policy goals
	including geologic gas throughput reduction and increased use of renewable
Definition:	resources.
Net Job Creation Notes:	
	An innovation plan must include, as applicable, "projected local job impacts resulting from implementation of the plan." Utilities should consider both jobs
Definition:	created by proposed pilots and jobs that may be eliminated by proposed pilots.
Economic	
<u>Economic</u> <u>Development</u>	
Notes: Definition:	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide
	additional economic benefits.
Public Co-Benefits	
Notes: Definition:	
	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.
	Reduces stormwater runoff costs; supports Minneapolis Park and Recreation Board tree planting and maintenance
Market	
Market Development	
Notes: Definition:	
	The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are realized
Direct Innovation Support Notes: Definition:	
Definition:	This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA-40 are unlikely to produce significant benefits on their
	own but are intended to lead to future opportunities.
Resource	
Resource Scalability and Role in a Decarbonized	
System Notes: Definition:	
Definition:	While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures
	needed to meet or exceed Minnesota's GHG reduction goels. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.

		Click here to go back to the list of all pilots					NGIA Pilot Profiles Workbook			
기스 기CF	CNP11 - Carbon Capture Archetype for Industrial or Large Commercial Facility	Click here to go back to the list of all pilots					NGIA Pilot Profiles Workbook			
	Pilot Project Code:	CNP11								
	Pilot Project Name:	Carbon Capture Archetype for Industrial or Large								
	1 311	Commercial Facility								
	Customer Class/ Sector: Low-Income Community Benefit?	C&I N								
	Target Area:	Territory-wide								
	Primary Innovative Resource Category:	Carbon Capture Se	elect primary Innovation Category.	Others can be listed he	ere:					
	Pilot Processing Control									
	<u>Pilot Description:</u> CNP would offer incentives covering a portion of the equipment and installation c	ost of capture carbon systems for industrial or large co	mmercial customers. These system	ns would be installed d	directly onsite for 1-	3 customers.				
	• • • • • • • • • • • • • • • • • • • •		,							
DESCRIPTION										
	Overview of Program/Implementation Approach:  Program would begin with a site identification and customer recruitment phase.									
	Customer would own and operate the carbon capture system.									
	CenterPoint Energy would creat a measurement and verification plan to monitor s	system performance for a period of time following insta	llation.							
	Other Comments / Information:	an aine hadan.								
	Possible that some participants could be larger or smaller than the carbon captur	e size below.								
KEY PILOT-SPECIFIC	INPUTS:									
	Pilot Year	Year 1	Year 2	Year 3	Year 4	Year 5				
	Calendar Year	7ear 1 2024	2025	7ear 3 2026	7ear 4 2027	7ear 5 2028	Ī			
	Participating Units, Size A	0	0	1	0	0	Incremental units added, annual (not cumulative).			
	Participating Units, Size B Participating Units, Size C	0	0	3	0	0				
	Unit of Participation =	Facility implementing carbon capture system	plant size	e (# of 25-tonne/day u	ınits)					
	Calculations & Other Explanation: Based on Post-Combustion Capture (amine)	Size A								
	Capture Capacity	25								
		9268								
	Industrial Facility's Natural Gas Firing Rate	22 M	MBtu/ Hour base size facility Natura	al Gas Firing Rate						
	Examples for Capture Cost Alone. Based on natural gas combusion in boilers and			ility operates at 75% ca	apacity utilization.		GHG Emissions & Capture Volumes at 100% Capacity Utilization		Ī	
			cility Size quivalent pounds of steam			Combustion CO2	(not used in analysis)			This column used in the analysis
NUMBER OF PARTICIPANTS		Natural Gas Firing Rate in MMBtu per Hour	per hour (80% efficient Equivalen	t MW (7000 Btu/kWh)	uel Use (MMBtu per year @100%CU)	(metric tons per	Combustion CO2 (metric tons per day @100% CU)	Capture Capacity (CO2 metric tons/day)	CO2 Capturable (metric tons per year @100% CU)	CO2 Captured (metric tons per year @expected% CU)
PARTICIPANTS	Size A: I facility	22	boiler) 14,657	3.13	191,625	year @100%CU) 10,298	28			6,951
	Size B: 2 facilities	2 sites @ 22			383,250	20,596	56	51	18,536	13,902
	Size C: 3 facilities	3 sites @ 22		L	574,875	30,893	86	76	27,804	20,853
	Capture %:	90%			1194	Btu/pound of stear	n (for size comparisons)			
	Small Industrial Boiler (10-100 mmBtu/hr input) GREET NG Combustion Factor (kg CO2e/MMBtu HHV):	5374			7000	Btu/kWh (for size c	omparisons)			
	Facility capacity utilization factor:	75%			,,,,,	Didykwii (ioi bizo o			_	
	Concentration (% CO2):	: 8%					Number of Trucks needed for facility scale of 22 MMBtu/Hr NG- firing rate (generating 25 tCO2/d)	(ICF analysis)		
	Pressure (psi):						ming rate (generating 20 to02/4)		T	7.5
	Pressure (psi):	14.70				Size A		Rounding up to whole truck Assumes facilities	Tractor Lifetime in Years	7.5
								participating in pilot Sizes B and C do not share trucks		
	CO2 Partial Pressure (psi):	1.18				Size B		across facilities	Trailer Lifetime in Years	20
						Size C		3	1	
	A T-t-	Year 1	Year 2 21,630 \$	Year 3 1,654,779 \$	Year 4	Year 5	USD (Nominal) Cost Unit:	There is seen and with a seen	and the state of t	t cap for this measure and will be used in the Utility Cost, and Non Participant
	Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B	\$ 134,800 \$ \$ 134,800 \$	21,630 \$	3,284,779 \$	222,947	\$ 11,030	total cost per year total cost per year	Cost tests for the NGIA evaluati	on criteria. This is the sum of utility admin	costs to run pilot, any incentive funding to support project deployment, and/or
	Annual Total Utility Incremental Cost, Size C	\$ 134,800 \$	21,630 \$	4,913,529 \$	322,947	\$ 11,030	total cost per year	the utility's annual revenue requ	irement for capital investments made on s	elect pilots.
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:			
	Fixed O&M Cost, Size A	\$ 134,800 \$	21,630 \$	154,779 \$			total cost per year	Fixed O&M Cost is the result of Development of Market Transfo.	adding up Total Project Delivery, Advertisi	ng and Promotions, Utility Administration, Trade Ally Incentives, and Workforce
	Fixed O&M Cost, Size B Fixed O&M Cost, Size C	\$ 134,800 \$ \$ 134,800 \$	21,630 \$	284,779 \$ 413,529 \$	222,947		total cost per year total cost per year	Development of Market Transfo.	rmation Cost	
			2,000	,		•				
	Total Project Delivery, Size A	Year 1	Year 2 21.630 \$	Year 3 152.279 \$	Year 4 122.947	Year 5	USD (Nominal) Cost Unit:	Total internal and external proje		
	Total Project Delivery, Size A Total Project Delivery, Size B	\$ 134,800 \$	21,630 \$	282,279 \$		\$ 11,030	per year per year	Total Internal and external proje	ct delivery	
	Total Project Delivery, Size C	\$ 134,800 \$	21,630 \$	412,279 \$	322,947	\$ 11,030	per year			
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:			
	Internal Project Delivery, Size A	\$ 9,800 \$	21,630 \$	22,279 \$		\$ 11,030	per year	CNP staff. These costs are sub-	set of the Utility "Fixed O&M Cost" categor	y above.
	Internal Project Delivery, Size B Internal Project Delivery, Size C	\$ 9,800 \$ \$ 9,800 \$		22,279 \$ 22,279 \$			per year per year			
	antonia i roject Delivery, dize C									
	External Project Delivery, Size A	Year 1 125,000 \$	Year 2	Year 3 130,000 \$	Year 4 100,000	Year 5	USD (Nominal) Cost Unit:	Tournel	duda diama inatali any control control control	arses the vendor. These costs are sub-set of the Utility "Fixed O&M Cost"
	External Project Delivery, Size B	\$ 125,000 \$	- \$	260,000 \$	200,000	\$ -	per year per year	External vendor costs would inc category above.	uuue urrect instali costs where CNP reimbi	was one vendor, rinese costs are sub-set of the Utility "Fixed O&M Cost"
	External Project Delivery, Size C	\$ 125,000 \$	- \$	390,000 \$			per year			
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:			
	Advertising and Promotions, Size A	\$ -	\$	2,500			per year	These costs are sub-set of the	Utility "Fixed O&M Cost" category above.	
	Advertising and Promotions, Size B	\$ -	\$	2,500			per year			

	Advertising and Promotions, Size C	\$ -	\$	1,250			per year	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Allocation of General Portfolio Costs, Size A						per year	Share of portfolio level costs, including plan development costs, regulatory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs. Size C						per year per year	_
		Year 1	Year 2				USD (Nominal) Cost Unit:	
	Trade Ally Incentives, Size A	Year 1	S - S	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per year	If applicable, include here the annual amount of trade ally incentives (e.g. midstream program)
	Trade Ally Incentives, Size B	\$ -	\$ - \$	-	\$ -	\$ -	per year	
	Trade Ally Incentives, Size C	s -	\$ - \$	-	\$ -	\$ -	per year	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Workforce Development or Market Transformation Cost, Size A Workforce Development or Market Transformation Cost, Size B	s -	s - s s - s	-	\$ - \$ -	\$ -	per year per year	These costs are sub-set of the Utility 'Fixed O&M Cost' category above.
	Workforce Development or Market Transformation Cost, Size C		\$ - \$	-	\$ -	\$ -	per year	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Other Fixed O&M Cost, Size A	\$ -	\$ - \$	-	\$ -	\$ -	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Other Fixed O&M Cost, Size B Other Fixed O&M Cost, Size C	s -	\$ - \$	-	\$ -	\$ -	per year per year	
	Other Fixed Oddri Odd, digo O		· ·		•	1 4		
	Total utility capital investment, Size A	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the incremental
UTILITY PILOT COSTS	Total utility capital investment, Size B	\$ -	\$ - \$	-	\$ -	\$ -	per year	costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital investments (shown
COSTS	Total utility capital investment, Size C	\$ -	\$ - \$	-	\$ -	\$ -	per year	Decow).
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	_
	Est. Annual Revenue Requirement for Capital Projects, Size A Est. Annual Revenue Requirement for Capital Projects, Size B		\$ - \$ \$ - \$	-	\$ -	\$ -	per year per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as well as the utility 'Fixed O&M Costs' captured above. This revenue requirement is calculated from the magnitude & timing of capital investment captured above,
	Est. Annual Revenue Requirement for Capital Projects, Size B  Est. Annual Revenue Requirement for Capital Projects, Size C		\$ - \$	-	\$ -	\$ -	per year per year	based on expected measure life (and depreciation time period), as well as the utility's return on investment.
			•			•		
		Total	USD (Nominal) Cost Unit:					
	Est. Total Revenue Requirement for Capital Projects, Size A		per year					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected measure life
	Est. Total Revenue Requirement for Capital Projects, Size B Est. Total Revenue Requirement for Capital Projects, Size C		per year per year					ne total revenue requirement is calculated from the magnitude a, timing of total capital investment captured above, based on expected measure are (and deprociation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
	est. Total Revenue Requirement for Capital Projects, Size C	-	per year					
	Incentives, Size A	Year 1	Year 2	Year 3 1,500,000	Year 4	Year 5	USD (Nominal) Cost Unit:	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc.). Do not include here
	Incentives, Size A Incentives, Size B		\$ - \$ \$ - \$	3,000,000	\$ - \$ -	\$ -	per year per year	Instrucks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc.). Up not include here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership, incentives will be used in the Participant
	Incentives, Size C	s -	\$ - \$	4,500,000	\$ -	\$ -	per year	or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will be used in the Participant
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives per Participant, Size A	#DIV/0!	#DIV/0! \$	1,500,000.00	#DIV/0!	#DIV/O!	per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size B Incentives per Participant, Size C	#DIV/0! #DIV/0!	#DIV/0! \$ #DIV/0! \$	1,500,000.00	#DIV/0! #DIV/0!	#DIV/0! #DIV/0!	per participant per year	
	incentives per Farticipant, Size C	#DIV/O:	#DIV/O: \$	1,500,000.00	#DIV/O:	#DIV/O:	per participant per year	
	Calculations & Other Explanation:							
			Size A				Parameters for Capture, Compression, etc. Economics	Value
			Size A				Parameters for Capture, Compression, etc. Economics	Value Compressor electricity use
		tonnes CO2/day:	Size A				Parameters for Capture, Compression, etc. Economics  Capacity utilization factor	Compressor electricity use 75% kWh/metric ton 109
			25					Compressor electricity use   75% kWh/metric ton   109
		tonnes CO2/day: tonnes CO2/year:	Size A 25 9268					Compressor electricity use   75% kWh/metric ton   109
		tonnes CO2/year:	9268	GCSI)			Capacity utilization factor  Life in years	Compressor electricity use   75% kWh/metric ton   109
			25	GCSI)			Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&I in MN)	Compressor electricity use   109
		tonnes CO2/year:	9268	GCSI)			Capacity utilization factor  Life in years	Compressor electricity use   75% kWh/metric ton   109
	Include customer incentives to cover the cost of an engineering study and	tonnes CO2/year:	9268	GCSI)			Capacity utilization factor  Life in years  Electricity price (\$/kWh for CSi in MN)  Price of NG to CSi in MN (\$/MMBtu)	Compressor electricity use   75% kWh/matric ton   109
	upfront equipment costs; could also account for site identification costs.	tonnes CO2/year: Capex:	25 9268 \$ 2,846,718 (via				Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&I in MN)	Compressor electricity use   109
		tonnes CO2/year: Capex:	9268	GCS) 200,000			Capacity utilization factor  Life in years  Electricity price (\$/kWh for CSi in MN)  Price of NG to CSi in MN (\$/MMBtu)	Compressor electricity use   75% kWh/matric ton   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCULCA:	tonnes C02/year: Capex: : \$ 30,000 : \$ 100,000	25 9268 \$ 2.846,718 (vie			САРЕХ	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.	Compressor electricity use   75% kWh/matric ton   109
	upfront equipment costs; could also account for site identification costs. Support for Engineering Studies Funding for CCULCA CNP Incentive to Cover X% of Expected CAPEX	tonnes C02/year: Capex: : \$ 30,000 : \$ 100,000 : 100%	25 9268 \$ 2.846,718 (via might cost 200K total (pre-project) (up to \$1.5M cap)			Categories Carbon Capture	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A	Compressor electricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCULCA:	tonnes C02/year: Capex: : \$ 30,000 : \$ 100,000 : 100%	25 9268 \$ 2.846,718 (via might cost 200K total (pre-project) (up to \$1.5M cap)			Categories	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A	Compressor electricity use   109
	upfront equipment costs; could also account for site identification costs. Support for Engineering Studies Funding for CCULCA CNP Incentive to Cover X% of Expected CAPEX	tonnes C02/year: Capex: : \$ 30,000 : \$ 100,000 : 100%	25 9268 \$ 2.846,718 (via 2.846,718 (via 2.846,718 (pre-project) (pre-pro			Categories Carbon Capture Equipment CO2 Dehydration	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/mMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1880,42	Compressor electricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification.	tonnes CO2/year: Capex: : \$ 30,000 : \$ 100,000 : \$125,000	25 9268 \$ 2.846,718 (via might cost 200K total (pre-project) ( (up to \$1.5M cap)  50 (M&V) + 50K (post-			Categories Carbon Capture Equipment  CO2 Dehydration Compression	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880,42	Compressor electricity use   109
	upfront equipment costs; could also account for site identification costs. Support for Engineering Studies Funding for CCULCA CNP Incentive to Cover X% of Expected CAPEX	tonnes CO2/year: Capex: : \$ 30,000 : \$ 100,000 : \$125,000	25 9268 \$ 2.846,718 (via 2.846,718 (via 2.846,718 (pre-project) (pre-pro			Categories Carbon Capture Equipment CO2 Dehydration	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/mMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1880,42	Compressor electricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification.	tonnes CO2/year: Capex: : \$ 30,000 : \$ 100,000 : \$125,000	25 9268 \$ 2.846,718 (via might cost 200K total (pre-project) ( (up to \$1.5M cap)  50 (M&V) + 50K (post-			Categories Carbon Capture Equipment  CO2 Dehydration Compression Equipment CO2 Transportation	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880,42	Compressor electricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification.	tonnes CO2/year: Capex: : \$ 30,000 : \$ 100,000 : \$125,000	25 9268 \$ 2.846,718 (via might cost 200K total (pre-project) ( (up to \$1.5M cap)  50 (M&V) + 50K (post-			Categories Carbon Capture Equipment  CO2 Dehydration Compression Equipment  CO2 Transportation (Trucking)	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880,42	Compressor electricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification.	tonnes CO2/year: Capex: : \$ 30,000 : \$ 100,000 : \$125,000	25 9268 \$ 2.846,718 (via might cost 200K total (pre-project) ( (up to \$1.5M cap)  50 (M&V) + 50K (post-			Categories Carbon Capture Equipment  CO2 Dehydration Compression Equipment CO2 Transportation	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880,42	Compressor electricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification.	tonnes C02/year: Capex:  \$\$ 30,000 \$\$ 100,000 \$: \$1025,000 \$: \$100,000	25 9268 \$ 2,846,718 (via might cost 200K total (pre-project) (up to \$1.5M cap)  50 (M&V) + 50K (post-project LCA update)	200,000	W-1-4	Categories Carbon Capture Equipment CO2 Dehydration Compression Equipment CO2 Transportation (Trucking) Equipment	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&I in MN)  Price of NG to C&I in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880,42  \$ 367,29  \$ 599,00	Compressor electricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies  Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification  Pilot Program M&V and Updated LCA  Total Pilot Upfront Costs, Size A	tonnes CO2/year: Capex: : \$ 30,000 : \$ 100,000 : \$125,000	25 9268 \$ 2.846,718 (via might cost 200K total (pre-project) ( (up to \$1.5M cap)  50 (M&V) + 50K (post-	200,000 Year 3 3,346,718	Year 4	Categories Carbon Capture Equipment  CO2 Dehydration Compression Equipment  CO2 Transportation (Trucking)	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880,42	Compressor electricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification  Pilot Program M&V and Updated LCA  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A	tonnes C02/year: Capex:  \$\$ 30,000 \$\$ 100,000 \$: \$1025,000 \$: \$100,000	25 9268 \$ 2,846,718 (via might cost 200K total (pre-project) (up to \$1.5M cap)  50 (M&V) + 50K (post-project LCA update)	200,000 Year 3	Year 4	Categories Carbon Capture Equipment CO2 Dehydration Compression Equipment CO2 Transportation (Trucking) Equipment	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&I in MN)  Price of NG to C&I in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880.42  \$ 367.29  \$ 599.00  USD (Nominal) Cost Unit: per participant per year per participant per year	Compressor electricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies  Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification  Pilot Program M&V and Updated LCA  Total Pilot Upfront Costs, Size A	tonnes C02/year: Capex:  \$\$ 30,000 \$\$ 100,000 \$: \$1025,000 \$: \$100,000	25 9268 \$ 2,846,718 (via might cost 200K total (pre-project) (up to \$1.5M cap)  50 (M&V) + 50K (post-project LCA update)	200,000 Year 3 3,346,718	Year 4	Categories Carbon Capture Equipment CO2 Dehydration Compression Equipment CO2 Transportation (Trucking) Equipment	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&I in MN)  Price of NG to C&I in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880,42  \$ 367,29  \$ 599,00  USD (Nominal) Cost Unit: per participant per year	Compressor electricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification  Pilot Program M&V and Updated LCA.  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size C	tonnes C02/year: Capex:  \$\$ 30,000 \$\$ 100,000 \$: \$1025,000 \$: \$100,000	25 9268 \$ 2,846,718 (via might cost 200K total (pre-project) (up to \$1.5M cap)  50 (M&V) + 50K (post-project LCA update)	200,000 Year 3 3,346,718	Year 4	Categories Carbon Capture Equipment CO2 Dehydration Compression Equipment CO2 Transportation (Trucking) Equipment	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&I in MN)  Price of NG to C&I in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880,42  \$ 367,29  \$ 599,00  USD (Nominal) Cost Unit:  per participant per year per participant per year per participant per year USD (Nominal) Cost Unit:	Compressor electricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCULCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification  Pilot Program M&V and Updated LCA:  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A	tonnes CO2/year: Capex: : \$ 30,000 : \$ 100,000 : \$125,000 : \$100,000	25 9268 \$ 2,846,718 (via might cost 200K total (pre-project) (up to \$1.5M cap)  50 (M6V) + 50K (post-project LCA update)  Year 2  \$ \$ \$ \$ \$	Year 3 3,346,718 3,346,718		Categories Carbon Capture Equipment CO2 Dehydration Compression Equipment CO2 Transportation (Trucking) Equipment Year 5	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&I in MN)  Price of NG to C&I in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880.42   \$ 367.29  \$ 599.00  USD (Nominal) Cost Unit:  per participant per year  per participant per year  per participant per year  USD (Nominal) Cost Unit:  per participant per year  per participant per year  per participant per year  USD (Nominal) Cost Unit:  per participant per year	Compressor electricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification  Pilot Program M&V and Updated LCA.  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size C	tonnes CO2/year:  Capex:  \$ 30,000 \$ 100,000 : 100,000 : \$125,000 : \$100,000	25   9268   \$   9268   \$   2,846,718   (via   2,846,718   (via   2,846,718   (via   2,846,718   (via + project)   \$   (up to \$1.5M cap)   \$   50 (M6V) + 50K (post-project LCA update)   \$   5   \$   \$	Year 3 3.346,718 3.346,718 4.346,718 3.346,718	Year 4 \$ - \$ - \$ -	Categories Carbon Capture Equipment CO2 Dehydratior Compression Equipment CO2 Transportation (Trucking) Equipment  Year 5  \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880.42   \$ 367.29  \$ 599.00  USD (Nominal) Cost Unit: per participant per year	Compressor delectricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification  Pilot Program M&V and Updated LCA  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C	tonnes C02/year:  Capex:  \$ 30,000  \$ 100,000  : 100% : \$125,000  Year 1  Year 1  \$ - 5  \$ - 5  While carbon capture units could qualify for RM	25   9268   \$ 2,846,718   (via   9268   \$ 2,846,718   (via   9268   \$ 2,846,718   (via   9268   92	Year 3  3,346,718  3,346,718  4,346,718  Year 3  en selected for the arche	Year 4 \$ - \$ - type here is expec	Categories Carbon Capture Equipment CO2 Dehydration CO2 Transportation (Trucking) Equipment Year 5  \$	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880.42   \$ 367.29  \$ 599.00  USD (Nominal) Cost Unit: per participant per year	Compressor delectricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification  Pilot Program M&V and Updated LCA.  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size A  Third Party Funding, Size A	tonnes CO2/year:  Capex:  \$ 30,000 \$ 100,000 : 100,000 : \$125,000 : \$100,000	25   9268   \$ 2,846,718   (via   9268   \$ 2,846,718   (via   9268   \$ 2,846,718   (via   9268   92	Year 3  3,346,718  3,346,718  4,346,718  Year 3  en selected for the arche	Year 4 \$ - \$ - type here is expec	Categories Carbon Capture Equipment CO2 Dehydration CO2 Transportation (Trucking) Equipment Year 5  \$	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880.42   \$ 367.29  \$ 599.00  USD (Nominal) Cost Unit: per participant per year	Compressor delectricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification  Pilot Program M&V and Updated LCA  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C	S   30,000	25   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268	Yeer 3	Year 4 \$ - \$ - type here is expectify for IRA funding.	Categories Carbon Capture Equipment CO2 Dehydratior Compression Equipment CO2 Transportation (Trucking) Equipment  Year 5  \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1880,42  \$ 367.29  \$ 599,00  USD (Nominal) Cost Unit:    per participant per year	Compressor delectricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX Scoping Study / Customer Identification  Pilot Program M&V and Updated LCA  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C  Description of source of external funding:	tonnes C02/year:  Capex:  \$ 30,000  \$ 100,000  : 100% : \$125,000  Year 1  Year 1  \$ - 5  \$ - 5  While carbon capture units could qualify for RM	25   9268   \$ 2,846,718   (via   9268   \$ 2,846,718   (via   9268   \$ 2,846,718   (pre-project)   \$ (up to \$1.5M cap)   \$ 50 (M&V) + 50K (post-project LCA update)   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 3 3,346,783 3,346,783 3,346,783 Year 3 en selected for the arche- projects that would qual	Year 4 \$ - \$ - \$ type here is expectify for IRA funding.	Categories Carbon Capture Equipment CO2 Dehydration CO2 Transportation (Trucking) Equipment Year 5  \$	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&I in MN)  Price of NG to C&I in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880,42  \$ 1,880,42  \$ 599,00  USD (Nominal) Cost Unit:  per participant per year per participant per year per participant per year USD (Nominal) Cost Unit:  per participant per year USD (Nominal) Cost Unit:  per participant per year USD (Nominal) Cost Unit:  USD (Nominal) Cost Unit:	Compressor electricity use   109
TOTAL AND DIRECT	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX Scoping Study / Customer Identification  Pilot Program M&V and Updated LCA  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Program M&V and Updated LCA  Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Program M&V and Updated LCA  Direct Participant Pilot Costs, Size A	S   30,000	25   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268	Yeer 3	Year 4 \$ - \$ - type here is expecify for IRA funding.	Categories Carbon Capture Equipment CO2 Dehydratior Compression Equipment CO2 Transportation (Trucking) Equipment  Year 5  \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1880,42  \$ 367.29  \$ 599,00  USD (Nominal) Cost Unit:    per participant per year	Compressor delectricity use   109
PARTICIPANT PILOT	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCULCA  CNP Incentive to Cover X% of Expected CAPEX  Scoping Study / Customer Identification  Pilot Program M&V and Updated LCA:  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A	S   30,000	25   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268	Year 3 3.346,718 3.346,718 3.346,718 Year 3 en selected for the arche projects that would qual	Year 4 \$ - \$ - type here is expecify for IRA funding.	Categories Carbon Capture Equipment CO2 Dehydratior Compression Equipment CO2 Transportation (Trucking) Equipment  Year 5  \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&i in MN)  Price of NG to C&i in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1880,42  \$ 367.29  \$ 367.29  \$ 599,00  USD (Nominal) Cost Unit:    per participant per year	Compressor delectricity use   109
	upfront equipment costs; could also account for site identification costs.  Support for Engineering Studies Funding for CCU LCA  CNP Incentive to Cover X% of Expected CAPEX Scoping Study / Customer Identification  Pilot Program M&V and Updated LCA  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Program M&V and Updated LCA  Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Program M&V and Updated LCA  Direct Participant Pilot Costs, Size A	S   30,000	25   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268   \$   9268	Year 3 3.346,718 3.346,718 3.346,718 Year 3 en selected for the arche projects that would qual	Year 4 \$ - \$ - type here is expecify for IRA funding.	Categories Carbon Capture Equipment CO2 Dehydratior Compression Equipment CO2 Transportation (Trucking) Equipment  Year 5  \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Capacity utilization factor  Life in years  Electricity price (\$/kWh for C&I in MN)  Price of NG to C&I in MN (\$/MMBtu)  \$/HP for compressor/pump/dehyd.  Size A  \$ 1,880,42  \$ 1,880,42  \$ 599,00  USD (Nominal) Cost Unit:  per participant per year  USD (Nominal) Cost Unit:  per participant per year	Compressor delectricity use   109

Escalation rate 3.82% 3.82% 3.82% 3.82% 3.82% (for each pilot analysis year) For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bure O%. There is a minimum for carbon capture projects that are not direct air capture and not at an electrical generating facility; the project has to capture at least 12,500 metric tons of carbon oxide per year.

2,846,718 IRA Discount on Capital Costs; assuming project would qualify for 30% investment tax credit pursuant to 28 USC 48E as an energy storage facility (which includes thermal energy storage property as defined in 28 USC 48); assume labor requirements will be satisfied so as to qualify for 30% as opposed to 6% do not assume that project is insta Refund from IRA: Portion of Costs IRA incentive applicable: \$ Assuming too small for IRA for now, if instead of 3 participants for Size C get one bigger one, could qualify (future opportunities to explore) Additional CAPEX: replacements CO2 Transportation's Truck Tractor with 7.5 year life (2 replacements) over 20 year pilot life 300,000 600,000 \$ 900,000 PV of two \$150,000 tractor replacements needed for 7.5 year tractor life (neglecting tractor/trailer salvage values) USD (Nominal) Cost Unit: Participant Non-Energy Costs, Size A 832.278 864.07 2 per participant per year of pilot life This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the articipant Non-Energy Costs, Size B Participant Cost tests for the NGIA evaluation criteria. per participant per year of pilot life Participant Non-Energy Costs, Size C per participant per year of pilot life Calculations & Other Explanation: Year 1 Year 2 Year 3 Year 4 Year 5 22 /tonne CO2 Non fuel consumables VOM costs for carbon capture \$ (via GCSI) Non-fuel cost of \$22/ metric ton of CO2 is computed from the GCCI report. It is mostly made up of chemicals and other consumables. Fixed O&M for carbon captur (via GCSI) Year 1 376,432 \$ 270,000 Fixed O&M of 270,000/ year plus 0.0566 \* Capex is based on the GCCSI study from which the cost algorithm was PARTICIPANT NON 1,129,297 1129 297 \$ 1,129,297 \$ 0.0566 ENERGY COSTS 1,882,161 \$ 1,882,161 \$ O&M for compression: 5% of the capex for compression, dehydration (inc. insur.+ prop. taxes) Assumes 125-mile 1-way trips (all return trips are empty) which translates to ~77,300 miles annually for all 2-way O&M for trucking the CO2 (2-way Transport 250 Miles per Trip - 1 way, 125 mi. round-trips needed based on CO2 production and truck trip with CO2; I way empty as return) capacity. Non-fuel O&M and diesel fuel O&M. Year 3 Est. 309 trips/year needed for CO2 quantity captured at single facility (Size A), given truck full load weight of commodity of 22,482 kg; 781 kg/m^3 density of CO2 in pressurized tanks at ~1,750 psi and trailer tank water vol. Covers insurance, staff, overhead, licenses and permits, tire replacement, and fuel O&M costs (at \$0.92/liter, or ~\$0.75/mile) for max 2-way 250 miles per year 253.936 253.936 253,936 28,770 L. 761.808 \$ 761.808 \$ 761.808 USD (Nominal) Cost Unit: Year 1 Year 2 Year 3 Year 4 Year 5 articipant Non-Energy Savings, Size A per participant per year of pilot life Participant Non-Energy Savings, Size B per participant per year of pilot life articipant Non-Energy Savings, Size C per participant per year of pilot life Calculations & Other Explanation: verage Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B Average Lifetime for Savings/Pilot Tech, Size C Calculations & Other Explanation: PILOT LIFE vg. Dth/Participant Saved, Size A (23,633) Dth/Participant Avg. Dth/Participant Saved, Size B (23.633) Dth/Participant Avg. Dth/Participant Saved, Size C (23,633) Dth/Participant Calculations & Other Explanation: 3.4 MMBtu fuel needed/metric ton of CO2 captured No natural gas combustion saved: carbon intensity of process just reduced. NATURAL GAS AVG. Dth/ PARTICIPANT

	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C	0.00	kWh/Participant kWh/Participant kWh/Participant	Units are kWh; could technically be othe	r non-NG. Avg. Non-Gas Fuel Units/Part.	Saved will be used in the Participant	nt Cost tests for the NGIA evaluation criteria.
AVG. NON-GAS FUEL UNITS/ PART.	Avg. Additional Non-Gas Fuel Units/Part.Used, Size A Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C  Calculations & Other Explanation:		kWh/Participant kWh/Participant kWh/Participant	Avg. Additional Non-Gas Fuel Units/Part.	Used will be used in the Participant Co:	st tests for the NGIA evaluation criteria	oria.
	Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C Calculations & Other Explanation:	Year 1	Year 2	Year 3 (23,633) (47,267) (70,900)	(47,267) (47	.633) Dth .267) Dth 900) Dth	Natural gas energy savings that result from multiplying savings per participant times the total number of new participants in a given year
TOTAL ANNUAL Dth SAVED							
	Grid Mix Scenario  Calculations & Other Explanation:	NREL	I	Select one of the listed grid mix scenaric  Otilities shall use electric-utility-specific	=	wable natural gas facility when it is re	reasonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from National Renewable Energy Laboratory (NREL)
GRID MIX SCENARIO							
	This section does not apply to all pilot types. The GHG changes from decrea	sed natural gas and/or electricity consumption wil	be calculated based on t	values above. However, for pilots w	rhere NGIA requires lifecycle G	HG savings (e.g. RNG, hydroge	gen, carbon capture) this section accounts for the lifecycle change in GHG emissions (per unit of participation).
	Lifecycle GHG Intensity, Size A	Year 1	Year 2	Year 3	Year 4 Year 5		
	Low Expected High			0.00 4,170,616 6,951,027	4,170,616 4,17	0.00 kg CO2e/participant 0.616 kg CO2e/participant 1,027 kg CO2e/participant	Utilities shall file a high live, and expected greenhouse gas intensity for immostive resources included in a proposed Natural Gas innovation Act immostion (PAGA) plan where applicable, light and love acceptions shall incorporate the state low and high assumptions for electricity was and other fuels used in the resources is flexycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilet programs and NSA plans.
	Lifecycle GHG Intensity, Size B	Year 1	Year 2	Year 3	Year 4 Year 5	0.00 kg CO2e/participant	greennouse gas reduction of pilot programs and Nusik plans.
	Expected High			4,170,616 6,951,027	4,170,616 4,17	0,616 kg CO2e/participant 1,027 kg CO2e/participant	
	Lifecycle GHG Intensity, Size C Low	Year 1	Year 2	Year 3	Year 4 Year 5	0.00 kg CO2e/participant	
	Expected High			4,170,616 6,951,027	4,170,616 4,17	0,616 kg CO2e/participant 1,027 kg CO2e/participant	
LIFECYCLE GHG INTENSITY BY PROJECT SIZE	Calculations & Other Explanation:  Research (via Carbon Cure and related studies) suggests that of CO2 sent to commodical improvement.	This pilot assumes CO2 is captured from CNP indi	ustrial client, then utilized i	n concrete. In traditional concrete p	roduction, cement is cured with	water, causing the calcium to	y be looking for another process that would utilize that CO2.  to react with the CO2 in the surrounding air and turning it back into strengthened calcium carbonate.  I concrete production. However, this analysis assumes that CNP would only take credit for the reduced industrial emissions at capture facility, and that offtaker
	would claim concrete s and an injuvement.  Due to research initing, an LCA is built into the cost of the pilot to better reflect Actual emissions will be pilot-specific depending on industrial facility and C		dy, but the ultimate carb	on capture projects in NGIA could	end up using the CO2 in a very	different way.	
	Default Geologic Gas Emissions Factor Geologic Gas Combustion Emissions Factor	kg CO2e/Dth 66.4			83,412,32 4,1		ility capturing 6,951 metric tons per year of CO2, about 60% would be absorbed into concrete; 60% based on Carbon Cure findings.
	GOODBO GOS COMBUSCION EMISSIONS I dCCO!	53.74	Size	13,802			

Size C 20,853 The estimated average annual effect of the project on system peak. It is estimated to be 1% for energy efficiency pilots. The method for other innovative resources should be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the Utility Cost and Non Participant Cost tests for the NGIA evaluation criteria. Calculations & Other Explanation: PEAK REDUCTION Year 2 USD (Nominal) Cost Unit: The CP methodology is used for energy efficiency. However, the value for other innovative resources should be considered in the context of specific utility proposals. For example, resources like open-to-hydrogen and RND may not decrease GMF costs as they also need to be transported to customes on the distribution systems Variable GMM will be used in the Utility Cost and NOP Participant Cost tests for the KMG evaluation oriteria. Variable O&M Cost, Applies to all project sizes 0.04 per Dth Year 1 Year 2 Year 3 Calculations & Other Explanation: Year 4 Year 5 -5.250% (for each pilot analysis year) Annual Escalation Rate calculated using the average percent change in the price of natural gas between 2023 through 2027 to all users in the West North Central Region as estimated in the Energy Information Administration's 2023 Annual Energy Outlook VARIABLE O&M USD (Nominal) Cost Unit: The CIP methodology is used for all resources other than strategic electrification. The method for strategic electrification should be considered in the context of specific utility pilot proposals.

equal to the average of daily real-time final market locational marginal prices (LMP) at the Minnesota Hub from January I. 2022 to December 3I, 2022 using data from Midwest Independent System Operator (MISO) Non-Gas (i.e., Electric) Fuel Cost 44.14 per MWh Calculations & Other Explanation: NON-GAS FUEL COST 8.22% Non-Gas Fuel Loss Factor The CIP methodology is used for all resources other than strategic electrification. The method for strategic electrification should be considered in the context of specific utility pilot proposals. In the most recent CIP, Staff used the weighted average of the most recent loss factors reported by Minnesota Power, Xoel Energy, and Otter Tail Power's reported 2021 transmission and distribution loss factors and weighting by the utilities' 2017-2019 average retail sales Calculations & Other Explanation: NON-GAS FUEL LOSS FACTOR USD Cost Unit: Generally no change from CIP methodology. The factor is calculated using the final environmental cost values approved by Minnesota Public Utilities Commission (Commission). The factors are reported in 2021 dollars in Table 2 below, which were calculated by inflating the Commission's approved dollar per ton environmental cost values using exclusion rate to adjust by observed inflation between 2014 and 201 Stakeholders expressed a preference for allowing utilities to select different externality values for pilots targeting appearing exporting or populations. For example, an energy efficiency project that targets an urban area might use the urban value rather than the metropolitan fringe values. Similarly, a project targeting a low-income population might use a high value retain the median Utilities can make deviations such as these in their NISA plans if they can provide justification for the change, Instead of requiring the use of median metropolitan fringe values for all non-GHG pollutars, as shown in Table 1 of the Commission's among a long to the Commission's among a lon 0.37 per Dth Other Non-GHG Pollutants, Size A 0.37 per Dth Other Non-GHG Pollutants. Size B 0.37 per Dth Other Non-GHG Pollutants, Size C Calculations & Other Explanation: N-GHG 2024 Gas environmental damage from all criteria pollutants combined 0.37

2022 Gas environmental damage from all criteria pollutants combined 0.34 2022 USD adjustment to 0.0779 2024 USD Escalation rate from legislation Innual escalation rate 3.82% Annual escalation rate calculated as the average of the 12-month percentage change in the "all items" customer price index available from the United States Bureau of Labor Statistics between 2018 and 2022. https://www.bls.gov/charts/consumer-price-inde Remainder of project life

16 # of jobs Total during 5 program years Net Direct Job Creation, Size A ties should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots. Net Direct Job Creation, Size B Net Direct Job Creation, Size C 45 # of jobs Total during 5 program years 19 # of jobs Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots. Net Indirect Job Creation, Size A Net Indirect Job Creation, Size B # of jobs Net Indirect Job Creation, Size C 53 # of jobs NET JOB CREATION Total during 5 program years 20 # of jobs 28 # of jobs Net Induced Job Creation, Size A Net Induced Job Creation, Size A Net Induced Job Creation, Size A 56 # of jobs <u>Calculations & Other Explanation:</u>
Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off. Year 1 USD (Nominal) Cost Unit: Public Co-Benefits, Size A per year ntifiable in some cases. If this metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative Considerations ion below. Public Co-Benefits, Size B per year Public Co-Benefits, Size C per year Calculations & Other Explanation: PUBLIC CO-BENEFITS USD (Nominal) Cost Unit: Year 1 Year 2 Year 3 Year 4 Year 5 Water Pollution, Size A The legislation left the door open to quantify any costs and benefits on water pollution. This might be quantifiable for some of the projects. If this metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative Considerations section below. Water Pollution, Size B per year Water Pollution, Size C per year Calculations & Other Explanation: WATER POLLUTION IONAL QUALITATIVE CONSIDERATIONS: GIA Utility

NGIA Participants	
NGIA Participants' Perspective Notes: Definition:	
Definition:	It is expected that many of the elements of the participant perspective, with respect to the direct effect of pilots, will be quantifiable and will rely on the structural values. Add here any information related to some direct effects of pilots on participants that may not be easily quantifiable. For example, increased comfort in a home and health benefits
	from pilots that improve indoor air quality are two examples of benefits that may be difficult to quantify.  May assist MN becinesses in achieving GHB goals
	way assist introducting and goals
NGIA	
NGIA Nonparticipating Customers' Perspective Notes:	
Customers'	
Perspective Notes:	As with the willing proposation the disease of sole programs on one.
	As with the utility perspective, the direct effects of pilot programs on non- participating customers should be quantified in most cases and can be heavily informed by structural values.
Definition:	
Effects on Other	
energy Systems	
Effects on Other Energy Systems and Energy Security: Definition:	
Definition:	
	NGIA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utility and its customers. Measures like strategic electrification specifically require gas utilities and the Commission to avoid negative effects on the electric system. Further, the NGIA empowers the Commission to consider a wide variety of "costs and benefits that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel markets.
	Commission to detail or the talk of the control of
GHG Emissions	
Notes: Definition:	
Denmition:	An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion of any environmental justice effects of the plant feated. GHG emissions, these may not be quantifiable.
Other Pollution	
Notes: Definition:	
Definition:	include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.
	introduct any accumuma non-other emminimental coals and determines, reviewing the effects of the pilot related to non-OHG pollution.
Waste Reduction	
Waste Reduction and Reuse Notes:	
Definition:	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes reduction of waster use.
Jennidon.	reduction of water day.
Policy Notes:	
	NGIA is intended to help the state achieve certain environmental policy goals
0.6.2	including geologic gas throughput reduction and increased use of renewable
Definition:	resources.
Net Job Creation	
Notes:	
	An imposition plan must include as applicable "projected focal job impacts
	An innovation plan must include, as applicable, 'projected local job impacts resulting from implementation of the plan." Utilities should consider both jobs
Definition:	created by proposed pilots and jobs that may be eliminated by proposed pilots.
Economic	
Development Notes:	
Economic Development Notes: Definition:	
	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.
	Likely that many projects will satisfy IRA labor requirements; will help MN build carbon capture workforce as carbon capture poised for growth due to IRA
Public Co-Benefits Notes: Definition:	
Notes: Definition:	
Destriction:	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.
Market	
Market Development Notes:	
Notes:	

May help MN businesses appeal to customers interested in sustainability; carbon capture may produce by-products for resale

Direct Innovation
Support Notes:
Definition:

future opportunities.

Opportunity for customers to learn about novel options for reducing GHGs from their systems

While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Ministration and the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Ministration (and the Commission to Consider the Section Commission to Consider the Processes (and the Commission to Consider the Commission to Consider the Processes (and the Commission the Commission the Commission the Processes (and the Commission the Commission the Commission the Commission the Processes (and the Commission the Commiss

			and the second s			NOIA Biles Beeffee Weetless I		
ا∠ CF	CNP13 - Carbon Capture Rebates for Commercial Buildings	Click here to go back to the list of all		ts have been reduced, to re	lect expectation	NGIA Pilot Profiles Workbook	year 5 participation levels. The portion of units account.	ed for in the SMB audit program has also been dropped slig
	Pilot Project Code:	CNP13	accamed participating uni	to have been reduced, to re-	.oor expectatio		your o participation levels. The portion of units account	ou .o the only addit program has also been dropped sile
		Carbon Capture Rebates for Co	mmercial					
	Pilot Project Name:	Buildings	annoroida					
	Customer Class/ Sector:	C&I						
	Low-Income Community Benefit?	N						
	Target Area:	Territory-wide						
	Primary Innovative Resource Category:	Carbon Capture	Select primary	Innovation Category. Others	can be listed he	ri en		
	Pilot December 2							
	<u>Pilot Description:</u> CenterPoint Energy proposes to provide rebates to commerce	oial austamara that install CarbinY	carbon captura avatama m	anufactured by the Canadia	a company Class	202		
	Center Form Energy proposes to provide repates to comment	cial customers that install carbling	carbon capture systems in	ianuractured by the Canadia	1 Company Clear	1102.		
DESCRIPTION								
	Overview of Program/ Implementation Approach:			and the formation of the affirmation		San and an area to a san dark to be a silled as	the control of the co	
	Customer would own and operate CarbinX Unit with standard its sale.	support from CleanO2. In additio	in to the manufacturer mair	ntaining the units, they arrang	e for the potass	lum carbonate by-product to be collected	on a regular basis, with customers earning revenue for	
	its sale.							
	Other Comments / Information:							
	CenterPoint Energy is currently piloting CarbinX units through	CIP R&D. Pending results of those	e test, CIP may offer a rebat	te for the energy efficiency c	omponent of the	e CarbinX savings (which could reduce NGI	A incentive levels).	
Y PILOT-SPECIF	IC INPUTS:							
	Pilot Year	Year 1	Year 2	Year 3 Year 4	Year 5	<u>_</u> .		
	Calendar Year		2024 2025	2026 20	27 202			
	Participating Units, Size A Participating Units, Size B		73 148	148 14	8 /3	Incremental units added, annual (not cumulative).		
	Participating Units, Size C		148 298	298 29		8		
		CarbinX systems installed				_		
	Calculations & Other Explanation:							
NUMBER OF								
						_		
PARTICIPANTS	Coulting Unite account to be installed in (Circ A) of Dilat 20		2 2	2	2	Cinna the againment in a still an ann an	offered disease shows the 200 and reins and in a	. house to settle at (a south on) of the transfer of the trans
PARTICIPANTS	CarbinX Units assumed to be installed in (Size A) of Pilot 20	):	2 2	2	2 :	2 Since the equivalent incentives would be	e offered directly through pilot #20, reducing participation	here to reflect (a portion) of that participation from pilot #2
PARTICIPANTS	CarbinX Units assumed to be installed in (Size A) of Pilot 20	):	2 2	2	2 :	2 Since the equivalent incentives would be	e offered directly through pilot #20, reducing participation	n here to reflect (a portion) of that participation from pilot #2
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs	March 15th 2024 Update: The a			ct expectations	for a slower/longer ramp up period to year		
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size.	March 15th 2024 Update: The a	5 10	20 4	ct expectations	for a slower/longer ramp up period to year 5		
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size Participating Units, Size	March 15th 2024 Update: The a	5 10 75 150	20 4 150 15	ot expectations 0 79 0 150	for a slower/longer ramp up period to year 5 D		n here to reflect (a portion) of that participation from pilot #2
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size.	March 15th 2024 Update: The a	5 10	20 4 150 15	ot expectations 0 79 0 150	for a slower/longer ramp up period to year 5 D		
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size Participating Units, Size	March 15th 2024 Update: The a	5 10 75 150	20 4 150 15	ot expectations 0 79 0 150	for a slower/longer ramp up period to year 5 D		
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size Participating Units, Size	March 15th 2024 Update: The & A B C	5 10 75 150 150 300	20 4 150 15 300 30	ot expectations of the control of th	for a slower/longer ramp up period to year 5 0 0 0		
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size Participating Units, Size Participating Units, Size	March 15th 2024 Update: The a	5 10 75 150 150 300	20 4 150 15 300 30	ot expectations: 7: 0 7: 0 150 0 300	for a slower/longer ramp up period to year 5 0 0 0 USD (Nominal) Cost Unit:	5 participation levels. The portion of units accounted for i	n the SMB audit program has also been dropped slightly (froi
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs  Participating Units, Size.  Participating Units, Size Participating Units Participation Scenarios (No. 1)	March 15th 2024 Update: The & A B C	5 10 75 150 150 300 Year 2 72,000 \$ 103,470	20 4 150 15 300 30 Year 3 Year 4 \$ 164,984 \$ 134,544	t expectations 79	for a slower/longer ramp up period to year 5 0 0 USD (Nominal) Cost Unit:	5 participation levels. The portion of units accounted for i	n the SMB audit program has also been dropped slightly (from the SMB audit program has also been dr
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs  Participating Units, Size  Participating Units, Size  Participating Units, Size  Participating Units, Size  Annual Total Utility Incremental Cost, Size A  Annual Total Utility Incremental Cost, Size B	March 15th 2024 Update: The & A B C	5 10 75 150 150 300	20 4 150 15 300 30 Year 3 Year 4 \$ 164,984 \$ 134,544	year 5 \$ 206,150 \$ 361,150	for a slower/longer ramp up period to year 5 0 0 USD (Nominal) Cost Unit: 1 total cost per year total cost per year	5 participation levels. The portion of units accounted for i	n the SMB audit program has also been dropped slightly (from the SMB audit program has also been dr
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs  Participating Units, Size.  Participating Units, Size Participating Units Participation Scenarios (No. 1)	March 15th 2024 Update: The & A B C	5 10 75 150 300 Year 2 72,000 \$ 103,470 497,000 \$ 948,470	20 4 150 15 300 30 Year 3 Year 4 \$ 164,984 \$ 134,544 \$ 949,984 \$ 359,544	year 5 \$ 206,150 \$ 361,150	for a slower/longer ramp up period to year 5 0 0 USD (Nominal) Cost Unit:	5 participation levels. The portion of units accounted for i  These incremental utility costs are what will count against the NGIA  Participant Cost tests for the NGIA evaluation criteria. This is the su	n the SMB audit program has also been dropped slightly (from the SMB audit program has also been dr
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs  Participating Units, Size Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C	March 15th 2024 Update: The & A B C	5 10 75 150 150 300 Year 2 72,000 \$ 103,470 497,000 \$ 948,470 985,000 \$ 1.887,310 Year 2	20 4 150 15 300 30 Year 3 Year 4 \$ 164,984 \$ 134,54* \$ 949,984 \$ 359,54* \$ 1889,689 \$ 700,14* Year 3 Year 4	vear 5  Year 5  7:0  7:0  7:0  7:0  7:0  7:0  8:0  9:0  15:0  15:0  15:0  15:0  16:0	USD (Nominal) Cost Unit: total cost per year total cost per year USD (Nominal) Cost Unit:	5 participation levels. The portion of units accounted for in the second of the second	In the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (foot, and Non more utility admin costs to run pilot, any incentive funding to support projectial investments made on select pilots.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C  Fixed O&M Cost, Size A	March 15th 2024 Update: The & A B C Year 1	5 10 75 150 300  Year 2 72,000 \$ 103,470 497,000 \$ 948,470 985,000 \$ 1887,310  Year 2 54,000 \$ 55,470	20 4 150 15 300 3C Year 3 Year 4 \$ 164,984 \$ 134,544 \$ 949,984 \$ 359,544 \$ 1889,689 \$ 700,144 Year 3 Year 4 \$ 66,984 \$ 58,544	year 5 5 60,150 \$ 60,150	USD (Nominal) Cost Unit: total cost per year total cost per year USD (Nominal) Cost Unit: total cost per year total cost per year USD (Nominal) Cost Unit:	5 participation levels. The portion of units accounted for in the portion of the portio	n the SMB audit program has also been dropped slightly (from the SMB audit program has also been dr
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size. Participating Units, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C	March 15th 2024 Update: The & A B C Year 1	5 10 75 150 300  Year 2 72,000 \$ 103,470 497,000 \$ 948,470 985,000 \$ 1887,310 Year 2 54,000 \$ 55,470 59,000 \$ 60,470	150   15   15   300   30   30   30   30   30   30	Year 5    \$ 206,150     \$ 361,150     \$ 60,150     \$ 60,150     \$ 65,150	for a slower/longer ramp up period to year 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	5 participation levels. The portion of units accounted for in the second of the second	In the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (foot, and Non more utility admin costs to run pilot, any incentive funding to support projectial investments made on select pilots.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C  Fixed O&M Cost, Size A	March 15th 2024 Update: The & A B C Year 1	5 10 75 150 300  Year 2 72,000 \$ 103,470 497,000 \$ 948,470 985,000 \$ 1887,310  Year 2 54,000 \$ 55,470	20 4 150 15 300 3C Year 3 Year 4 \$ 164,984 \$ 134,544 \$ 949,984 \$ 359,544 \$ 1889,689 \$ 700,144 Year 3 Year 4 \$ 66,984 \$ 58,544	Year 5    \$ 206,150     \$ 361,150     \$ 60,150     \$ 60,150     \$ 65,150	for a slower/longer ramp up period to year 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	5 participation levels. The portion of units accounted for in the portion of the portio	In the SMB audit program has also been dropped slightly (fro budget cap for this measure and will be used in the Utility Cost, and Non m of utility admin costs to run pilot, any incentive funding to support proje- tial investments made on select pilots.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size. Participating Units, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C	March 15th 2024 Update: The 6	5 10 75 150 300  Year 2 72,000 \$ 103,470 497,000 \$ 948,470 985,000 \$ 1887,310  Year 2 54,000 \$ 55,470 59,000 \$ 60,470 97,000 \$ 99,310	20 4 150 18 300 30 Year 3 Year 4 \$ 164,984 \$ 134,544 \$ 949,984 \$ 359,54 \$ 1889,689 \$ 700,141 Year 3 Year 4 \$ 66,984 \$ 58,544 \$ 101,689 \$ 104,144	Year 5   \$ 206,150   \$ 72,664   \$ 60,150   \$ 65,150   \$ 106,664	USD (Nominal) Cost Unit:  Itotal cost per year  total cost per year	5 participation levels. The portion of units accounted for in the portion of the portio	In the SMB audit program has also been dropped slightly (fro budget cap for this measure and will be used in the Utility Cost, and Non m of utility admin costs to run pilot, any incentive funding to support proje- tial investments made on select pilots.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size. Participating Units, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C	March 15th 2024 Update: The & A B C Year 1	5 10 75 150 300  Year 2 72,000 \$ 103,470 497,000 \$ 948,470 985,000 \$ 1887,310 Year 2 54,000 \$ 55,470 59,000 \$ 60,470	20 4 150 15 300 30  Year 3 Year 4 \$ 164,984 \$ 134,544 \$ 949,984 \$ 359,544 \$ 1889,689 \$ 700,144 Year 3 Year 4 \$ 66,984 \$ 63,544 \$ 101689 \$ 104,144 Year 3 Year 4	Tear 5  Year 5  S 206,150  S 702,664  Year 5  S 60,150  Year 5  S 60,150  Year 5	for a slower/longer ramp up period to year 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	5 participation levels. The portion of units accounted for in the portion of the portio	In the SMB audit program has also been dropped slightly (fro budget cap for this measure and will be used in the Utility Cost, and Non m of utility admin costs to run pilot, any incentive funding to support proje- tial investments made on select pilots.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C  Fixed O&M Cost, Size A Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size C	March 15th 2024 Update: The 6	5 10 75 150 300  Year 2 72,000 \$ 103,470 497,000 \$ 948,470 985,000 \$ 1.887,310 Year 2 54,000 \$ 56,470 97,000 \$ 99,310  Year 2 49,000 \$ 50,470 49,000 \$ 50,470	Year 3	Year 5   \$ 60,150   \$ 65,150   \$ 702,664   \$ 55,150   \$ 706,664   \$ 55,150   \$ 708,664   \$ 55,150   \$ 708,664	USD (Nominal) Cost Unit:  USD (Nominal) Cost Unit:  Iotal cost per year  total cost per year  USD (Nominal) Cost Unit:  Iotal cost per year  USD (Nominal) Cost Unit:  Iotal cost per year  USD (Nominal) Cost Unit:  Iotal cost per year  USD (Nominal) Cost Unit:	5 participation levels. The portion of units accounted for in the second of the second	In the SMB audit program has also been dropped slightly (fro budget cap for this measure and will be used in the Utility Cost, and Non m of utility admin costs to run pilot, any incentive funding to support proje ital investments made on select pilots.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C  Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A	March 15th 2024 Update: The 6	5 10 75 150 300  Year 2  72,000 \$ 103,470 497,000 \$ 948,470 985,000 \$ 1887,30  Year 2  54,000 \$ 55,470 59,000 \$ 99,310  Year 2  49,000 \$ 50,470	Year 3	Year 5   \$ 60,150   \$ 65,150   \$ 702,664   \$ 55,150   \$ 706,664   \$ 55,150   \$ 708,664   \$ 55,150   \$ 708,664	USD (Nominal) Cost Unit: total cost per year	5 participation levels. The portion of units accounted for in the second of the second	In the SMB audit program has also been dropped slightly (fro budget cap for this measure and will be used in the Utility Cost, and Non m of utility admin costs to run pilot, any incentive funding to support proje ital investments made on select pilots.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size. Participating Units, Size. Participating Units, Size Participating Units, Size Install Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C  Fixed O&M Cost, Size A Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size A Total Project Delivery, Size B	March 15th 2024 Update: The each	5 10 75 150 300  Year 2 72,000 \$ 103,470 497,000 \$ 948,470 985,000 \$ 1887,310  Year 2 54,000 \$ 55,470 59,000 \$ 60,470 97,000 \$ 99,310  Year 2 49,000 \$ 50,470 49,000 \$ 50,470 77,000 \$ 79,310	Year 3   Year 4     \$ 164,984   \$ 134,544     \$ 194,984   \$ 359,544     \$ 1689,689   \$ 700,144     Year 3   Year 4     \$ 66,984   \$ 58,544     \$ 61,984   \$ 63,544     \$ 101,689   \$ 104,144     Year 3   Year 4     \$ 51,984   \$ 53,54     \$ 51,984   \$ 5	Year 5   \$ 60,150   \$ 65,150   \$ 55,150   \$ 86,664   \$ 86,664	USD (Nominal) Cost Unit:  total cost per year	5 participation levels. The portion of units accounted for in the second of the second	In the SMB audit program has also been dropped slightly (fro budget cap for this measure and will be used in the Utility Cost, and Non m of utility admin costs to run pilot, any incentive funding to support proje- ital investments made on select pilots.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size B Fixed O&M Cost, Size A Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size B Total Project Delivery, Size B	March 15th 2024 Update: The 6	5 10 75 150 300   Year 2 72,000 \$ 103,470 497,000 \$ 948,470 985,000 \$ 1,887,310  Year 2 54,000 \$ 55,470 59,000 \$ 50,470 49,000 \$ 50,470 77,000 \$ 79,310  Year 2	Year 3	Year 5  \$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	USD (Nominal) Cost Unit:  1 total cost per year  USD (Nominal) Cost Unit:  1 total cost per year  1 total cost per year  USD (Nominal) Cost Unit:  1 total cost per year  USD (Nominal) Cost Unit:  1 total cost per year  1 USD (Nominal) Cost Unit:  1 per year  1 per year  1 per year  1 USD (Nominal) Cost Unit:	5 participation levels. The portion of units accounted for in the second of the second	In the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly admin costs to run pilot, any incentive funding to support projectial investments made on select pilots.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C  Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size C  Internal Project Delivery, Size A	March 15th 2024 Update: The each	5 10 75 150 300  Year 2 72,000 \$ 103,470 497,000 \$ 948,470 985,000 \$ 1887,310  Year 2 54,000 \$ 55,470 59,000 \$ 60,470 97,000 \$ 99,310  Year 2 49,000 \$ 50,470 49,000 \$ 50,470 77,000 \$ 79,310	Year 3   Year 4     \$ 164,984   \$ 134,544     \$ 164,984   \$ 134,544     \$ 1889,689   \$ 700,144     Year 3   Year 4     \$ 66,984   \$ 63,544     \$ 61,984   \$ 63,544     \$ 51,984   \$ 53,54     \$ 51,984   \$ 53,54     \$ 81,689   \$ 84,140     Year 3   Year 4     \$ 51,984   \$ 53,54     \$ 51,984   \$ 51,984     \$ 51,984   \$ 51,984     \$ 51,984   \$ 51,984     \$ 51,984   \$ 51,984     \$ 51,984   \$	Year 5   \$ 60,150   \$ 106,664   \$ 55,150   \$ 86,664   Year 5	USD (Nominal) Cost Unit:  total cost per year USD (Nominal) Cost Unit: per year	5 participation levels. The portion of units accounted for in the second of the second	In the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the Utility Cost, and None of utility admin costs to run pilot, any incentive funding to support projected investments made on select pilots.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size B Fixed O&M Cost, Size A Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size B Total Project Delivery, Size B	March 15th 2024 Update: The each	Tear 2   Tear 2	Year 3	Year 5   \$ 206,150     \$ 361,150     \$ 65,150     \$ 55,15	USD (Nominal) Cost Unit:  1 total cost per year  USD (Nominal) Cost Unit:  1 total cost per year  1 total cost per year  USD (Nominal) Cost Unit:  1 total cost per year  USD (Nominal) Cost Unit:  1 total cost per year  1 USD (Nominal) Cost Unit:  1 per year  1 per year  1 per year  1 USD (Nominal) Cost Unit:	5 participation levels. The portion of units accounted for in the second of the second	In the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly admin costs to run pilot, any incentive funding to support projectial investments made on select pilots.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size. Participating Units, Size. Participating Units, Size of the Control of t	March 15th 2024 Update: The each	5 10 75 150 300  Year 2 72,000 \$ 103,470 497,000 \$ 948,470 985,000 \$ 1,887,310  Year 2 54,000 \$ 55,470 59,000 \$ 60,470 97,000 \$ 99,310  Year 2 49,000 \$ 50,470 77,000 \$ 79,310  Year 2 49,000 \$ 50,470 49,000 \$ 50,470 77,000 \$ 50,470  Year 2 49,000 \$ 50,470	Year 3	Year 5   \$ 206,150     \$ 361,150     \$ 65,150     \$ 55,15	USD (Nominal) Cost Unit:  total cost per year  USD (Nominal) Cost Unit:  per year	5 participation levels. The portion of units accounted for in the second of the second	In the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the Utility Cost, and None of utility admin costs to run pilot, any incentive funding to support projected investments made on select pilots.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size of Size A Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size B Fixed O&M Cost, Size A Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Total Project Delivery, Size A Internal Project Delivery, Size A Internal Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size C	March 15th 2024 Update: The each	5 10 75 150 300  Year 2 72,000 \$ 103,470 497,000 \$ 948,470 985,000 \$ 1,887,310  Year 2 54,000 \$ 55,470 59,000 \$ 60,470 97,000 \$ 99,310  Year 2 49,000 \$ 50,470 77,000 \$ 79,310  Year 2 49,000 \$ 50,470 49,000 \$ 50,470 77,000 \$ 50,470  Year 2 49,000 \$ 50,470	Year 3	Year 5   \$ 206,150     \$ 361,150     \$ 65,150     \$ 55,15	USD (Nominal) Cost Unit:  USD (Nominal) Cost Unit:  Itotal cost per year  total cost per year  USD (Nominal) Cost Unit:  Itotal cost per year  USD (Nominal) Cost Unit:  Itotal cost per year  USD (Nominal) Cost Unit:  per year  USD (Nominal) Cost Unit:  per year  per year  USD (Nominal) Cost Unit:  per year  per year  per year  USD (Nominal) Cost Unit:  per year  per year  USD (Nominal) Cost Unit:  per year	5 participation levels. The portion of units accounted for in the participation levels. The portion of units accounted for in the participation of the participant Cost tests for the NSIA evaluation criteria. This is the sudeployment, and/or the utility's annual revenue requirement for cap.  Fixed OSM Cost is the result of adding up Total Project Delivery, And Workforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed OSM Cost'	In the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly cost, and None of utility admin costs to run pilot, any incentive funding to support projetial investments made on select pilots.  Vertising and Promotions, Utility Administration, Trade Ally Incentives, and vertising and Promotions, Utility Administration, Trade Ally Incentives, and staggory above.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size B Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size B Total Project Delivery, Size B Total Project Delivery, Size B Internal Project Delivery, Size A Internal Project Delivery, Size B Internal Project Delivery, Size C External Project Delivery, Size C External Project Delivery, Size C	March 15th 2024 Update: The each	Team   Team	Year 3	Year 5    \$ 206,150   \$ 361,150   \$ 65,150   \$ 55,150   \$ 86,664  Year 5    \$ \$ 55,150   \$ 86,664  Year 5    \$ \$ 55,150   \$ 86,664  Year 5    \$ \$ 55,150   \$ \$ 86,664  Year 5    \$ \$ 55,150   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	USD (Nominal) Cost Unit:  total cost per year  USD (Nominal) Cost Unit:  total cost per year  USD (Nominal) Cost Unit:  per year  per year  per year  per year  per year  USD (Nominal) Cost Unit:  per year  USD (Nominal) Cost Unit:  Der year	5 participation levels. The portion of units accounted for in the participant Cost tests for the NSIA evaluation enteria. This is the subsequence of the unitary annual revenue requirement for capture of t	In the SMB audit program has also been dropped slightly (fro budget cap for this measure and will be used in the Utility Cost, and Non m of utility admin costs to run pilot, any incentive funding to support proje- ital investments made on select pilots.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C  Fixed O&M Cost, Size A Fixed O&M Cost, Size A Fixed O&M Cost, Size A Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size A Internal Project Delivery, Size B Internal Project Delivery, Size C  External Project Delivery, Size A External Project Delivery, Size B	March 15th 2024 Update: The each	Team   Team	Year 3	Year 5   \$ 206,150   \$ 4 \$ 55,150   \$ 86,664   Year 5   \$ 86,664   Year 5   \$ 55,150   \$ 86,664   Year 5   \$ 56,150   \$ 86,664   Year 5   \$ 55,150   \$ 86	USD (Nominal) Cost Unit:  Itotal cost per year  USD (Nominal) Cost Unit:  Itotal cost per year  IUSD (Nominal) Cost Unit:	5 participation levels. The portion of units accounted for in the participation levels. The portion of units accounted for in the participation of the participant Cost tests for the NSIA evaluation criteria. This is the sudeployment, and/or the utility's annual revenue requirement for cap.  Fixed OSM Cost is the result of adding up Total Project Delivery, And Workforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed OSM Cost'	In the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly sadmin costs to run pilot, any incentive funding to support projetial investments made on select pilots.  Vertising and Promotions, Utility Administration, Trade Ally Incentives, and vertising and Promotions, Utility Administration, Trade Ally Incentives, and staggory above.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size B Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size B Total Project Delivery, Size B Total Project Delivery, Size B Internal Project Delivery, Size A Internal Project Delivery, Size B Internal Project Delivery, Size C External Project Delivery, Size C External Project Delivery, Size C	March 15th 2024 Update: The each	Team   Team	Year 3	Year 5    \$ 206,150   \$ 361,150   \$ 65,150   \$ 55,150   \$ 86,664  Year 5    \$ \$ 55,150   \$ 86,664  Year 5    \$ \$ 55,150   \$ 86,664  Year 5    \$ \$ 55,150   \$ \$ 86,664  Year 5    \$ \$ 55,150   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	USD (Nominal) Cost Unit:  total cost per year  USD (Nominal) Cost Unit:  total cost per year  USD (Nominal) Cost Unit:  per year  per year  per year  per year  per year  USD (Nominal) Cost Unit:  per year  USD (Nominal) Cost Unit:  Der year	5 participation levels. The portion of units accounted for in the participant Cost tests for the NSIA evaluation enteria. This is the subsequence of the unitary annual revenue requirement for capture of t	In the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly sadmin costs to run pilot, any incentive funding to support projectial investments made on select pilots.  Vertising and Promotions, Utility Administration, Trade Ally Incentives, and vertising and Promotions, Utility Administration, Trade Ally Incentives, and staggory above.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C  Fixed O&M Cost, Size A Fixed O&M Cost, Size A Fixed O&M Cost, Size A Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size A Internal Project Delivery, Size B Internal Project Delivery, Size C  External Project Delivery, Size A External Project Delivery, Size B	March 15th 2024 Update: The each	Team   Team	Year 3	Year 5   \$ 206,150   \$ 4 \$ 55,150   \$ 86,664   Year 5   \$ 86,664   Year 5   \$ 55,150   \$ 86,664   Year 5   \$ 56,150   \$ 86,664   Year 5   \$ 55,150   \$ 86	USD (Nominal) Cost Unit:  Itotal cost per year  USD (Nominal) Cost Unit:  Itotal cost per year  IUSD (Nominal) Cost Unit:	5 participation levels. The portion of units accounted for in the participant Cost tests for the NSIA evaluation enteria. This is the subsequence of the unitary annual revenue requirement for capture of t	In the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly sadmin costs to run pilot, any incentive funding to support projectial investments made on select pilots.  Vertising and Promotions, Utility Administration, Trade Ally Incentives, and vertising and Promotions, Utility Administration, Trade Ally Incentives, and staggory above.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C  Fixed O&M Cost, Size A Fixed O&M Cost, Size A Fixed O&M Cost, Size A Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size A Internal Project Delivery, Size B Internal Project Delivery, Size C  External Project Delivery, Size A External Project Delivery, Size B	March 15th 2024 Update: The each	5 10 75 150 75 150 150 300   Year 2  72,000 \$ 103,470 497,000 \$ 948,470 985,000 \$ 55,470 59,000 \$ 50,470 97,000 \$ 50,470 77,000 \$ 79,310  Year 2  49,000 \$ 50,470 77,000 \$ 50,470 7	Year 3	Year S	USD (Nominal) Cost Unit:  total cost per year  USD (Nominal) Cost Unit:  per year  per year  USD (Nominal) Cost Unit:  per year  per year  per year  per year  per year  USD (Nominal) Cost Unit:  per year  USD (Nominal) Cost Unit:  per year  per year	5 participation levels. The portion of units accounted for in the participant Cost tests for the NSIA evaluation enteria. This is the subsequence of the unitary annual revenue requirement for capture of t	In the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly dropped some first subject to the Utility administration of the Utility Incentives, and stategory above.
PARTICIPANTS	Total Participation Scenarios for Carbin X Unit Installs Participating Units, Size of Size Install Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size B Fixed O&M Cost, Size A Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size B Total Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size C External Project Delivery, Size A External Project Delivery, Size B	March 15th 2024 Update: The each	Team	Year 3	Year S	USD (Nominal) Cost Unit:  1 total cost per year  1 USD (Nominal) Cost Unit: 1 per year 2 per year 3 per year 3 per year 4 per year	5 participation levels. The portion of units accounted for in the participation levels. The portion of units accounted for in the participant cost is the substance of the NSIA evaluation criteria. This is the substance of the participant Cost tests for the NSIA evaluation criteria. This is the substance of the utility's annual revenue requirement for cape fixed O&M Cost is the result of adding up Total Project Delivery, And Workforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed O&M Cost' of the Utility Tixed O&M Co	In the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (for the SMB audit program has also been dropped slightly (for the SMB audit program has also been dropped slightly (for the SMB audit program has also been dropped slightly (for the SMB audit program has also been dropped slightly (for the SMB audit program has also been dropped slightly (for the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program has also been dropped slightly) (from the SMB audit program ha

	Advertising and Promotions, Size C	\$ 20.00	00 \$ 20,000	\$ 20,000 5	\$ 20,000	\$ 20,000	Der vear	
	Advertising and Promotions, Size C	Ψ 20,00	30 ψ 20,000	Ψ 20,000 (	Ψ 20,000	Ψ 20,000	per year	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	_
	Allocation of General Portfolio Costs, Size A						per year	Share of portfolio level costs, including plan development costs, regulatory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size B						per year	
	Allocation of General Portfolio Costs, Size C						per year	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Trade Ally Incentives, Size A		- \$ -	\$ - 5	\$ -	\$ -	per year	If applicable, include here the annual amount of trade ally incentives (e.g. midstream program)
	Trade Ally Incentives, Size B	\$	- \$ -	\$ - 5	\$ -	\$ -	per year	
	Trade Ally Incentives, Size C	\$	- \$ -	\$ - 5	\$ -		per year	
		V4	V 2	V	W 4	V F	1100 (11 1 - 1) 0 11 - 1	
	Workforce Development or Market Transformation Cost, Size	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
UTILITY PILOT	Workforce Development or Market Transformation Cost, Size I		- \$ -	\$ - 5	\$ -	-	per year	These costs are sub-set of the othicy fixed own cost category above.
COSTS	Workforce Development or Market Transformation Cost, Size		- \$ -	\$ - 5	\$ -	\$ -	per year	
	·							
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Other Fixed O&M Cost, Size A	\$	- \$ -	\$ - 5	\$ -	\$ -	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Other Fixed O&M Cost, Size B Other Fixed O&M Cost, Size C	\$	- \$ -	\$ - 3	\$ -	\$ -	per year per year	
	Other Fixed Oxivi Cost, Size C	\$	- 5 -	<b>5</b> - 5	Φ -	Φ -	per year	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Total utility capital investment, Size A		- \$ -	\$ - 5	\$ -	\$ -	per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the
	Total utility capital investment, Size B	\$	- \$ -	\$ - 5	\$ -	\$ -	per year	incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital
	Total utility capital investment, Size C	\$	- \$ -	\$ - 5	\$ -	\$ -	per year	investments (shown below).
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Est. Annual Revenue Requirement for Capital Projects, Size A	*	- \$ - - \$ -	\$ - 3	\$ -	Ψ	per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as well as the utility "Fixed O&M Costs" capitured above. This revenue requirement is calculated from the magnitude & timing of capital investment
	Est. Annual Revenue Requirement for Capital Projects, Size B Est. Annual Revenue Requirement for Capital Projects, Size C	*	- \$ -	\$ - 3		\$ - \$ -	per year per year	captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
	Est. Allitual Revenue Requirement for Capital Projects, 312e C	Ψ	¥	Ψ .	Ψ	Ψ	per year	
			USD					
			(Nominal)					
		Total	Cost Unit:					
	Est. Total Revenue Requirement for Capital Projects, Size A		per year					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected
	Est. Total Revenue Requirement for Capital Projects, Size B		per year					measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
	Est. Total Revenue Requirement for Capital Projects, Size C		per year					
		Year 1	Year 2	Year 3	Year 4		USD (Nominal) Cost Unit:	
	Incentives, Size A	\$ 18.0				Year 5 \$ 146,000		This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc). Do not include
	Incentives, Size A Incentives, Size B		00 \$ 48,000	\$ 108,000 \$		\$ 146,000	per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc.). Do not include here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct
		\$ 438,00	00 \$ 48,000	\$ 108,000 \$	\$ 76,000	\$ 146,000	per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will
	Incentives, Size B	\$ 438,00	00 \$ 48,000 00 \$ 888,000 00 \$ 1,788,000	\$ 108,000 S \$ 888,000 S	\$ 76,000 \$ 296,000 \$ 596,000	\$ 146,000 \$ 296,000	per year per year per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct
	Incentives, Size B Incentives, Size C	\$ 438,00 \$ 888,00	00 \$ 48,000 00 \$ 888,000 00 \$ 1,788,000 Year 2	\$ 108,000 \$ \$ 888,000 \$ \$ 1,788,000 \$ Year 3	\$ 76,000 \$ 296,000 \$ 596,000 Year 4	\$ 146,000 \$ 296,000 \$ 596,000 Year 5	per year per year per year USD (Nominal) Cost Unit:	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures) or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he used in the Participant Crest tests for the NGB audustrion criteria
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A	\$ 438,00 \$ 888,00 Year 1 \$ 6,00	00 \$ 48,000 00 \$ 888,000 00 \$ 1,788,000 Year 2	\$ 108,000 \$ \$ 888,000 \$ \$ 1,788,000 \$ \$ Year 3	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000	\$ 146,000 \$ 296,000 \$ 596,000 Year 5 \$ 2,000	per year per year per year USD (Nominal) Cost Unit: per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B	\$ 438,00 \$ 888,00 Year 1 \$ 6,00 \$ 6,00	00 \$ 48,000 00 \$ 888,000 00 \$ 1,788,000 Year 2 00 \$ 6,000 00 \$ 6,000	\$ 108,000 \$ 888,000 \$ 1,788,000 \$ Year 3 \$ 6,000 \$ \$ 6,000 \$	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000	\$ 146,000 \$ 296,000 \$ 596,000 Year 5 \$ 2,000 \$ 2,000	per year per year per year  USD (Nominal) Cost Unit: per participant per year per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures) or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he used in the Participant Crest tests for the NGB audustrion criteria
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A	\$ 438,00 \$ 888,00 Year 1 \$ 6,00 \$ 6,00	00 \$ 48,000 00 \$ 888,000 00 \$ 1,788,000 Year 2	\$ 108,000 \$ 888,000 \$ 1,788,000 \$ Year 3 \$ 6,000 \$ \$ 6,000 \$	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000	\$ 146,000 \$ 296,000 \$ 596,000 Year 5 \$ 2,000 \$ 2,000	per year per year per year USD (Nominal) Cost Unit: per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures) or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he used in the Participant Crest tests for the NGB audustrion criteria
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C	\$ 438.00 \$ 888.00 Year 1 \$ 6,00 \$ 6,00	00 \$ 48,000 00 \$ 888,000 00 \$ 1,788,000	\$ 108,000 \$ 888,000 \$ 1,788,000 \$ Year 3 \$ 6,000 \$ \$ 6,000 \$	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000	\$ 146,000 \$ 296,000 \$ 596,000 Year 5 \$ 2,000 \$ 2,000	per year per year per year  USD (Nominal) Cost Unit: per participant per year per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures) or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he used in the Participant Crest tests for the NGB audustrion criteria
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B	\$ 438,00 \$ 888,00 Year 1 \$ 6,00 \$ 6,00	00 \$ 48,000 00 \$ 888,000 00 \$ 1,788,000	\$ 108,000 \$ 888,000 \$ 1,788,000 \$ Year 3 \$ 6,000 \$ \$ 6,000 \$	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000	\$ 146,000 \$ 296,000 \$ 596,000 Year 5 \$ 2,000 \$ 2,000	per year per year per year  USD (Nominal) Cost Unit: per participant per year per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures) or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he used in the Participant Crest tests for the NGB audustrion criteria
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C	\$ 438,00 \$ 888,00  Year 1  \$ 6,00 \$ 6,00  Plan for NGIA incentives is to support the Year 1	00 \$ 48,000 00 \$ 888,000 00 \$ 1,788,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 the installation of the Year 2	\$ 108,000 \$ 888,000 \$ 1,788,000 \$ Year 3 \$ 6,000 \$ \$ 6,000 \$ \$ 6,000 \$	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000	\$ 146,000 \$ 296,000 \$ 596,000 Year 5 \$ 2,000 \$ 2,000	per year per year per year VSD (Nominal) Cost Unit: per participant per year per participant per year per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures) or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he used in the Participant Crest tests for the NGB audustrion criteria
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:	\$ 438,00 \$ 888,00  Year 1  \$ 6,00 \$ 6,00 \$ 6,00  Plan for NGIA incentives is to support the Year 1  **Solution of the Year 1  **Solution of the Year 1  **Solution of the Year 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	00 \$ 48,000 00 \$ 888,000 00 \$ 1,788,000	\$ 108,000 \$ 888,000 \$ 1788,000 \$ 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000	\$ 146,000 \$ 296,000 \$ 596,000 Year 5 \$ 2,000 \$ 2,000 \$ 2,000 Year 5 \$2,000 a \$3,000	per year per year per year VSD (Nominal) Cost Unit: per participant per year per participant per year per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures) or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he used in the Participant Crest tests for the NGB auditation criteria
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:	\$ 438.00 \$ 888.00  Year 1  \$ 6,00 \$ 6,00  Plan for NGIA incentives is to support the Secretary of Secretary o	00 \$ 48,000 00 \$ 886,000 00 \$ 1788,000 00 \$ 6,000 00 \$	\$ 108,000 \$ 8888,000 \$ \$ 1788,000 \$ \$ 1788,000 \$ \$ 6,000 \$ 6,000 \$	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000	\$ 146,000 \$ 296,000 \$ 596,000 Year 5 \$ 2,000 \$ 2,000 \$ 2,000 Year 5 \$ 2,000 a \$3,000 centives will	per year per year per year VSD (Nominal) Cost Unit: per participant per year per participant per year per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures) or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will be used in the Participant Crest tests for the NGB auditation criteria
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:	\$ 438.00 \$ 888.00  Year 1  \$ 6.00 \$ 6.00  Plan for NGIA incentives is to support the Control of Section 1 of	00 \$ 48,000 0 \$ 888,000 00 \$ 1788,000  Year 2 00 \$ 6,000 00 \$ 6,00	\$ 108,000 \$ 8888,000 \$ 1788,000 \$ 1788,000 \$ \$ 6,000 \$ \$	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000	\$ 146,000 \$ 296,000 \$ 596,000 Year 5 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 6,000 \$ 8,000 \$ 2,000	per year per year per year VSD (Nominal) Cost Unit: per participant per year per participant per year per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures) or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will be used in the Participant Crest tests for the NGB auditation criteria
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:	\$ 438,00 \$ 888.00  Year 1  \$ 6,00 \$ 6,00 \$ 6,00 \$ 6.00  Plan for NGIA incentives is to support the Year 1  **Continuous of the Year 1 \$ 6,00 \$	00 \$ 48,000 00 \$ 888,000 00 \$ 888,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 treat \$ 6,000 00 \$ 6,000 to fifer an \$ 8,000 re tallations at addition subsequent installations at addition subsequent installation subsequent installation subsequent subsequent subsequent subsequent subsequent subsequent subsequent subsequen	\$ 108,000 \$ 888,000 \$ \$ 888,000 \$ \$ 1788,000 \$ \$ \$ 6,000	\$ 76,000 \$ 296,000 \$ 596,000 \$ 2,000 \$ 3,000 \$ 2,000 \$ 3,000 \$	\$ 146,000 \$ 296,000 \$ 596,000 Year 5 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 6,000 \$ 8,000 \$ 2,000	per year per year per year VSD (Nominal) Cost Unit: per participant per year per participant per year per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will be used in the Participant Post tasts for the NGIA auditation criteria.
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:	\$ 438.00 \$ 888.00  Year 1  \$ 6.00 \$ 6.00  Plan for NGIA incentives is to support the Control of Section 1 of	00 \$ 48,000 00 \$ 888,000 00 \$ 888,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 treat \$ 6,000 00 \$ 6,000 to fifer an \$ 8,000 re tallations at addition subsequent installations at addition subsequent installation subsequent installation subsequent subsequent subsequent subsequent subsequent subsequent subsequent subsequen	\$ 108,000 \$ 888,000 \$ \$ 888,000 \$ \$ 1788,000 \$ \$ \$ 6,000	\$ 76,000 \$ 296,000 \$ 596,000 \$ 2,000 \$ 3,000 \$ 2,000 \$ 3,000 \$	\$ 146,000 \$ 296,000 \$ 596,000 Year 5 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 6,000 \$ 8,000 \$ 2,000	per year per year per year VSD (Nominal) Cost Unit: per participant per year per participant per year per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures) or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will be used in the Participant Crest tests for the NGB auditation criteria
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:	\$ 438,00 \$ 888.00  Year 1  \$ 6,00 \$ 6,00 \$ 6,00 \$ 6.00  Plan for NGIA incentives is to support the Year 1  **Continuous of the Year 1 \$ 6,00 \$	00 \$ 48,000 00 \$ 888,000 00 \$ 888,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 treat \$ 6,000 00 \$ 6,000 to fifer an \$ 8,000 re tallations at addition subsequent installations at addition subsequent installation subsequent installation subsequent subsequent subsequent subsequent subsequent subsequent subsequent subsequen	\$ 108,000 \$ 888,000 \$ \$ 888,000 \$ \$ 1788,000 \$ \$ \$ 6,000	\$ 76,000 \$ 296,000 \$ 596,000 \$ 2,000 \$ 3,000 \$ 2,000 \$ 3,000 \$	\$ 146,000 \$ 296,000 \$ 596,000 Year 5 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 6,000 \$ 8,000 \$ 2,000	per year per year per year VSD (Nominal) Cost Unit: per participant per year per participant per year per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures) or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he used in the Participant Crest tests for the NGB audustrion criteria
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:	\$ 438.00  Year 1  \$ 6,00  \$ 6,00  Plan for NGIA incentives is to support the Year 1  **Section 1	00 \$ 48,000 00 \$ 888,000 00 \$ 8788,000  Year 2 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 the installation of the Year 2 00 \$ 6,000 to 6,000 to offer an \$8,000 re tallations at addition subsequent installations at each time the tallation of the year 2 traillations at addition to subsequent installations at addition subsequent installations at addition subsequent installations at addition to your year 2 traillations at addition subsequent installations are incompletely additionally additiona	\$ 108,000   \$ 888,000   \$ 1788,000   \$ 1788,000   \$ 6,00	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 Year 4 \$2,000 stallations, and ume 60% of inc n average of ind the saverage of ind the saverage of	\$ 146,000 \$ 296,000 \$ 596,000 Year 5 \$ 2,000 \$ 2,000 Year 5 \$2,000 a \$3,000 entives will \$6,000 nigher for	per year per year per year USD (Nominal) Cost Unit: per participant per year per participant per year per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures) or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he used in the Participant Crest tests for the NGB audustrion criteria
	Incentives, Size B Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation	\$ 438.00 \$ 888.00  Year 1  \$ 6.00 \$ 6.00  Plan for NGIA incentives is to support the Year 1  Year 1  Solution in years 1 - 3, CenterPoint plans to rebate for a customer's subsequent insign to first time installations, and 40% to rebate per installation. Additionally, the initial installations, and then scaled down	00 \$ 48,000 00 \$ 888,000 00 \$ 1788,000  Year 2 00 \$ 6,000 00 \$ 6,0	\$ 108,000   \$ 888,000   \$ 1788,	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 Year 4 \$2,000 To an average of iilot years (e.g. hears of facility.	\$ 146,000 \$ 296,000 \$ 596,000 Year 5 \$ 2,000 \$ 2,000 \$ 2,000 Year 5 \$ 2,000 	per year per year per year year USD (Nominal) Cost Unit: per participant per year per participant per year per participant per year per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will ha useful in the Participant of the NCIA auditation criteria.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital).
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:	\$ 438.00 \$ 888.00  Year 1  \$ 6.00 \$ 6.00  Plan for NGIA incentives is to support the Year 1  Year 1  Solution in years 1 - 3, CenterPoint plans to rebate for a customer's subsequent insign to first time installations, and 40% to rebate per installation. Additionally, the initial installations, and then scaled down	00 \$ 48,000 00 \$ 888,000 00 \$ 888,000 00 \$ \$ 1788,000  Year 2 00 \$ 6,000 00 \$ 40,490	\$ 108,000   \$ 888,000   \$ 1788,	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 Year 4 \$2,000 To an average of iilot years (e.g. hears of facility.	\$ 146,000 \$ 296,000 Year 5 \$ 2,000 \$ 2,000 \$ 2,000 Year 5 \$ 2,000 \$ 2,000 1 \$ 32,000 1 \$ 45,000 1 \$ 45,000 1 \$ 45,000 1 \$ 45,000 1 \$ 45,000	per year per year per year USD (Nominal) Cost Unit: per participant per year per participant per year per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will have used in the Participant of the Participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, no
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation  Total Pilot Upfront Costs, Size A	\$ 438.00 \$ 888.00  Year 1  \$ 6,00 \$ 6,00 \$ 6,00  Plan for NGIA incentives is to support the Year 1  **Section of the Year 1  **Year 1  **Section of Year 1  **Year 1  **Section of Year 1  **Year 1  **Section of Year 1  **Section of Ye	00 \$ 48,000 00 \$ 888,000 00 \$ 888,000 00 \$ \$ 1788,000  Year 2 00 \$ 6,000 00 \$ 40,490	\$ 108,000   \$ 888,000   \$ 1788,	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 stallations, and urme 60% of inc n an average of ilot years (e.g. I- zes of facility. Year 4 \$ 43,642 \$ 43,642 \$ 43,642 \$ 43,642	\$ 146,000 \$ 296,000 \$ 296,000 \$ \$ 2,000 \$ 2,00	per year per year per year per year USD (Nominal) Cost Unit: per participant per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will ha useful in the Participant of the NCIA auditation criteria.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital).
	Incentives, Size B Incentives per Participant, Size A Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B	\$ 438.00 \$ 79ar 1  \$ 6,00 \$ 6,00 \$ 6,00 \$ 6,00 \$ 79ar 1 79ar 1  \$ 6,00 \$ 79ar 1 79ar 1  \$ 6,00 \$ 1 79ar 1  \$ 79ar 1 \$ 79ar	00 \$ 48,000 00 \$ 888,000 00 \$ 8786,000  Year 2 00 \$ 6,000 00 \$ 40,490 00 \$ 40,490 00 \$ 40,490 00 \$ 40,490	\$ 108,000   \$ 888,000   \$ 888,000   \$ 1788,000   \$ 1788,000   \$ 6,	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 Year 4 \$ 2,000 or inc n an average of illot years (e.g. It res of facility. Year 4 \$ 43,642 \$ 43,642 \$ 43,642 \$ 43,642	\$ 146,000 \$ 296,000 \$ 296,000 \$ \$ 2,000 \$ 2,00	per year per year per year per year USD (Nominal) Cost Unit: per participant per year per participant per year per participant per year per participant per year  USD (Nominal) Cost Unit: per participant per participant per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will have used in the Participant of the Participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, no
	Incentives, Size B Incentives per Participant, Size A Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C	\$ 438.00 \$ 888.00  Year 1  \$ 6,00 \$ 6,00 \$ 6,00  Plan for NGIA incentives is to support the experiment of the experiment	00 \$ 48,000 00 \$ 888,000 00 \$ 888,000 00 \$ 6,000 00 \$ 40,490 00 \$ 40,490 00 \$ 40,490 00 \$ 40,490 00 \$ 40,490	\$ 108,000   \$ 888,000   \$ 1788,	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2000 \$ 20	\$ 146,000 \$ 296,000 \$ 296,000 \$ \$ 2,000 \$ 2,00	per year per year per year per year  USD (Nominal) Cost Unit: per participant per year  USD (Nominal) Cost Unit: per participant per participant per participant per participant per participant Des per participant Des participant Des participant Des participant Des participant Des	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he useral in the Participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A	\$ 438.00 \$ 888.00  Year 1  \$ 6.00 \$ 6.00 \$ 6.00  Plan for NGIA incentives is to support the control of the cont	00 \$ 48,000 00 \$ 888,000 00 \$ 8788,000 00 \$ \$ 1,788,000  Year 2 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 40,400 00 \$ 40,490	\$ 108,000   \$ 888,000   \$ 888,000   \$ 1788,000   \$ 1788,000   \$ 6,	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 Year 4 \$ 2,000 or inc n an average of illot years (e.g. It res of facility. Year 4 \$ 43,642 \$ 43,642 \$ 43,642 \$ 43,642	\$ 146,000 \$ 296,000 \$ 296,000 \$ \$ 2,000 \$ 2,00	per year per year per year per year USD (Nominal) Cost Unit: per participant per year USD (Nominal) Cost Unit: per participant USD (Nominal) Cost Unit: per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHC audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will ha useful in the Participant of the NCHA auditation criteria.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's
TOTAL AND DIRECT	Incentives, Size B Incentives per Participant, Size A Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size A	\$ 438.00 \$ 888.00  Year 1  \$ 6.00 \$ 6.00 \$ 6.00  Plan for NGIA incentives is to support the control of the cont	00 \$ 48,000 00 \$ 888,000 00 \$ 888,000 00 \$ 6,000 00 \$ 40,490 00 \$ 40,490 00 \$ 40,490 00 \$ 40,490 00 \$ 40,490	\$ 108,000   \$ 888,000   \$ 888,000   \$ 1788,000   \$ 1788,000   \$ 6,	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 Year 4 \$ 2,000 or inc n an average of illot years (e.g. It res of facility. Year 4 \$ 43,642 \$ 43,642 \$ 43,642 \$ 43,642	\$ 146,000 \$ 296,000 \$ 296,000 \$ \$ 2,000 \$ 2,00	per year per year per year per year USD (Nominal) Cost Unit: per participant per year per participant per year per participant per year per participant per year  USD (Nominal) Cost Unit: per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he useral in the Participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
TOTAL AND DIRECT PARTICIPANT PILOT	Incentives, Size B Incentives per Participant, Size A Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation  Incentive per installation  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C	\$ 438.00 \$ 888.00  Year 1  \$ 6.00 \$ 6.00 \$ 6.00  Plan for NGIA incentives is to support the control of the cont	00 \$ 48,000 00 \$ 888,000 00 \$ 8788,000 00 \$ \$ 1,788,000  Year 2 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 40,400 00 \$ 40,490	\$ 108,000   \$ 888,000   \$ 888,000   \$ 1788,000   \$ 1788,000   \$ 6,	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 Year 4 \$ 2,000 or inc n an average of illot years (e.g. It res of facility. Year 4 \$ 43,642 \$ 43,642 \$ 43,642 \$ 43,642	\$ 146,000 \$ 296,000 \$ 296,000 \$ 596,000 \$ \$ 2,000 \$ 2,00	per year per year per year per year USD (Nominal) Cost Unit: per participant per year USD (Nominal) Cost Unit: per participant USD (Nominal) Cost Unit: per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHC audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will ha useful in the Participant of the NCHA auditation criteria.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's
	Incentives, Size B Incentives per Participant, Size A Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size A	\$ 438.00 \$ 888.00  Year 1  \$ 6.00 \$ 6.00 \$ 6.00  Plan for NGIA incentives is to support the control of the cont	00 \$ 48,000 00 \$ 888,000 00 \$ 8788,000 00 \$ \$ 1,788,000  Year 2 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 40,400 00 \$ 40,490	\$ 108,000   \$ 888,000   \$ 888,000   \$ 1788,000   \$ 1788,000   \$ 6,	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 Year 4 \$ 2,000 or inc n an average of illot years (e.g. It res of facility. Year 4 \$ 43,642 \$ 43,642 \$ 43,642 \$ 43,642	\$ 146,000 \$ 296,000 \$ 296,000 \$ 596,000 \$ \$ 2,000 \$ 2,00	per year per year per year per year USD (Nominal) Cost Unit: per participant per year per participant per year per participant per year per participant per year  USD (Nominal) Cost Unit: per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHC audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will ha useful in the Participant of the NCHA auditation criteria.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's
	Incentives, Size B Incentives per Participant, Size A Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation  Incentive per installation  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C	\$ 438.00 \$ 888.00  Year 1  \$ 6.00 \$ 6.00 \$ 6.00  Plan for NGIA incentives is to support the control of the cont	00 \$ 48,000 00 \$ 888,000 00 \$ 8788,000 00 \$ \$ 1,788,000  Year 2 00 \$ 6,000 00	\$ 108,000   \$ 888,000   \$ 888,000   \$ 1788,000   \$ 1788,000   \$ 6,	\$ 76,000 \$ 296,000 \$ 596,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 Year 4 \$ 2,000 or inc n an average of illot years (e.g. It res of facility. Year 4 \$ 43,642 \$ 43,642 \$ 43,642 \$ 43,642	\$ 146,000 \$ 296,000 \$ 296,000 \$ 596,000 \$ \$ 2,000 \$ 2,00	per year per year per year per year USD (Nominal) Cost Unit: per participant per year per participant per year per participant per year per participant per year  USD (Nominal) Cost Unit: per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHC audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will ha useful in the Participant of the NCHA auditation criteria.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's
	Incentives, Size B Incentives per Participant, Size A Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation  Incentive per installation  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C	\$ 438.00 \$ 888.00  Year 1  \$ 6.00 \$ 6.00 \$ 6.00  Plan for NGIA incentives is to support the support to the supp	00 \$ 48,000 00 \$ 888,000 00 \$ 888,000 00 \$ 1788,000 00 \$ 6,000 00	108,000     108,000     108,000     1788,0	\$ 76,000 \$ 2,0	\$ 146,000 \$ 296,000 \$ 296,000 \$ \$ 2,	per year per year per year per year  USD (Nominal) Cost Unit: per participant per year  USD (Nominal) Cost Unit: per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHC audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he useral in the Participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation  Incentive per installation  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A	\$ 438.00 \$ 888.00  Year 1  \$ 6.00 \$ 6.00 \$ 6.00  Plan for NGIA incentives is to support it Year 1  Year 1  S 6.00 Note, in years 1 - 3, CenterPoint plans to rebate for a customer's subsequent ining go to first time installations, and 40% to rebate per installation. Additionally, the initial installations, and then scaled down year 1  \$ 39.00  Year 1  \$ 39.00  Year 1  \$ 39.00  Year 1  \$ 33.00  Year 1	00 \$ 48,000 00 \$ 888,000 00 \$ 8788,000 00 \$ 8788,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 6,000 00 \$ 40,400 00 \$ 40,490 00 \$ 40,490 00 \$ 40,490 00 \$ 40,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490	\$ 108,000   \$ 8 888,000   \$ 8 888,000   \$ \$ 888,000   \$ \$ 8 888,000   \$ \$ \$ 1788,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ 6,000   \$ \$ \$ 6,000   \$ \$ \$ 6,000   \$ \$ \$ 6,000   \$ \$ \$ 6,000   \$ \$ \$ \$ 6,000   \$ \$ \$ \$ 6,000   \$ \$ \$ \$ 6,000   \$ \$ \$ \$ 6,000   \$ \$ \$ \$ \$ 6,000   \$ \$ \$ \$ \$ \$ 6,000   \$ \$ \$ \$ \$ \$ 6,000   \$ \$ \$ \$ \$ \$ \$ \$ 6,000   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ 6,000   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ 76,000 \$ 296,000  Year 4 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000  Year 4 \$ 2,000  Stallations, and ume 60% of inc an average of illot years (e.g. H 243,642 \$ 41,642 \$ 41,642	\$ 146,000 \$ 296,000 \$ 296,000 \$ 596,000 \$ \$ 2,	per year per year per year per year USD (Nominal) Cost Unit: per participant per year  USD (Nominal) Cost Unit: per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHC audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will ha useral in the Participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  In this represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  In this represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation  Incentive per installation  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A	\$ 438.00 \$ 888.00  Year 1  \$ 6,00 \$ 6,00 \$ 6,00  Plan for NGIA incentives is to support it Year 1  **Section 1	00 \$ 48,000 00 \$ 888,000 00 \$ 8788,000 00 \$ 8788,000 00 \$ 6,000 00	\$ 108,000   \$ 888,000   \$ 1788,000   \$ 1788,000   \$ 1788,000   \$ 6	\$ 76,000 \$ 296,000 Year 4 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000  Year 4 \$ 2,000 Stallations, and ume 60% of inc an average of illot years (e.g. If years 4) \$ 43,642 Year 4 \$ 5 43,642	\$ 146,000 \$ 296,000 \$ 296,000 \$ 596,000 \$ \$ 2,	per year per year per year per year USD (Nominal) Cost Unit: per participant per year per participant per year per participant per year per participant per year  USD (Nominal) Cost Unit: per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHC audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he useral in the Participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation  Incentive per	\$ 438.00 \$ 888.00  Year 1  \$ 6,00 \$ 6,00 \$ 6,00  Plan for NGIA incentives is to support if Year 1  **Control of the Section of the Section of S	00 \$ 48,000 00 \$ 888,000 00 \$ 888,000 00 \$ 6	\$ 108,000   \$ 888,000   \$ 1788,	\$ 76,000 \$ 296,000 \$ 296,000 \$ \$ 296,000 \$ \$ 2,000 \$ 2,000 \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,0	\$ 146,000 \$ 296,000 \$ 2,000 \$ \$ 2,00	per year per year per year per year USD (Nominal) Cost Unit: per participant per year  USD (Nominal) Cost Unit: per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHC audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will ha useral in the Participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  In this represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  In this represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation	\$ 438,00 \$ 888,00  Year 1  \$ 6,00 \$ 6,00 \$ 6,00 \$ 6,00  Plan for NGIA incentives is to support it Year 1  **Control of the incentive is to support it Year 1  **Control of the incentive is to support it Year 1  **Control of the incentive is to support it Year 1  **Control of the incentive is to support it Year 1  \$ 39,0  Year 1  \$ 39,0  Year 1  \$ 33,00  Year 1  \$ 33,00  Year 1	00 \$ 48,000 00 \$ 888,000 00 \$ 888,000 00 \$ 8,000 00 \$ 6,000 00 \$ 40,490 00 \$ 40,490 00 \$ 40,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490	\$ 108,000   \$ 8 888,000   \$ 8 888,000   \$ \$ 888,000   \$ \$ 1788,000   \$ \$ 6,000   \$ 6,000   \$	\$ 76,000 \$ 296,000 \$ 296,000  Year 4 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000  Year 4 \$ 2,000 \$ 2,000  Year 4 \$ 43,642 \$ 44,642 \$ 44,642 \$ 44,642 \$ 44,642	\$ 146,000 \$ 296,000 \$ 296,000 \$ \$ 2,	per year per year per year per year USD (Nominal) Cost Unit: per participant per year  USD (Nominal) Cost Unit: per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHC audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will ha useral in the Participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note I: some pilots taking a Direct Install' approach may see the utility covering all costs, with no upfront financial contribution from the participant.
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation  Incentive per	\$ 438,00 \$ 888,00  Year 1  \$ 6,00 \$ 6,00 \$ 6,00 \$ 6,00  Plan for NGIA incentives is to support it Year 1  **Control of the incentive is to support it Year 1  **Control of the incentive is to support it Year 1  **Control of the incentive is to support it Year 1  **Control of the incentive is to support it Year 1  \$ 39,0  Year 1  \$ 39,0  Year 1  \$ 33,00  Year 1  \$ 33,00  Year 1	00 \$ 48,000 00 \$ 888,000 00 \$ 888,000 00 \$ 6	\$ 108,000   \$ 888,000   \$ 1788,	\$ 76,000 \$ 296,000 \$ 296,000 \$ \$ 296,000 \$ \$ 2,000 \$ 2,000 \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,000 \$ \$ 2,0	\$ 146,000 \$ 296,000 \$ 296,000 \$ \$ 2,	per year per year per year per year USD (Nominal) Cost Unit: per participant per year  USD (Nominal) Cost Unit: per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHC audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will ha useral in the Participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  In this represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  In this represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation	\$ 438,00 \$ 888,00  Year 1  \$ 6,00 \$ 6,00 \$ 6,00 \$ 6,00  Plan for NGIA incentives is to support it Year 1  **Control of the incentive is to support it Year 1  **Control of the incentive is to support it Year 1  **Control of the incentive is to support it Year 1  **Control of the incentive is to support it Year 1  \$ 39,0  Year 1  \$ 39,0  Year 1  \$ 33,00  Year 1  \$ 33,00  Year 1	00 \$ 48,000 00 \$ 888,000 00 \$ 888,000 00 \$ 8,000 00 \$ 6,000 00 \$ 40,490 00 \$ 40,490 00 \$ 40,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490	\$ 108,000   \$ 8 888,000   \$ 8 888,000   \$ \$ 888,000   \$ \$ 1788,000   \$ \$ 6,000   \$ 6,000   \$	\$ 76,000 \$ 296,000 \$ 296,000  Year 4 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000  Year 4 \$ 2,000 \$ 2,000  Year 4 \$ 43,642 \$ 44,642 \$ 44,642 \$ 44,642 \$ 44,642	\$ 146,000 \$ 296,000 \$ 296,000 \$ \$ 2,	per year per year per year per year USD (Nominal) Cost Unit: per participant per year  USD (Nominal) Cost Unit: per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he useral in the Participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the I2-month percentage change in the "all items" consumer price index available from the United
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation	\$ 438,00 \$ 888,00  Year 1  \$ 6,00 \$ 6,00 \$ 6,00 \$ 6,00  Plan for NGIA incentives is to support it Year 1  **Control of the incentive is to support it Year 1  **Control of the incentive is to support it Year 1  **Control of the incentive is to support it Year 1  **Control of the incentive is to support it Year 1  \$ 39,0  Year 1  \$ 39,0  Year 1  \$ 33,00  Year 1  \$ 33,00  Year 1	00 \$ 48,000 00 \$ 888,000 00 \$ 888,000 00 \$ 8,000 00 \$ 6,000 00 \$ 40,490 00 \$ 40,490 00 \$ 40,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490 00 \$ 34,490	\$ 108,000   \$ 8 888,000   \$ 8 888,000   \$ \$ 888,000   \$ \$ 1788,000   \$ \$ 6,000   \$ 6,000   \$	\$ 76,000 \$ 296,000 \$ 296,000  Year 4 \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000  Year 4 \$ 2,000 \$ 2,000  Year 4 \$ 43,642 \$ 44,642 \$ 44,642 \$ 44,642 \$ 44,642	\$ 146,000 \$ 296,000 \$ 296,000 \$ \$ 2,	per year per year per year per year USD (Nominal) Cost Unit: per participant per year  USD (Nominal) Cost Unit: per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he useral in the Participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the I2-month percentage change in the "all items" consumer price index available from the United
	Incentives, Size B Incentives, Size C Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size B Incentives per Participant, Size C Calculations & Other Explanation:  Incentive per installation	\$ 438.00 \$ 888.00  Year 1  \$ 6,00 \$ 6,00 \$ 6,00  Plan for NGIA incentives is to support if Year 1  **Content of the incentive is to support if Year 1  **Content of the incentive is to support if Year 1  **Content of the incentive is to support if Year 1  **Content of the incentive is to support if Year 1  \$ 39.0  Year 1  \$ 39.0  Year 1  \$ 39.0  Year 1  \$ 33.0  Year 1  \$ 33.0  Year 1  \$ 33.0  Year 1	00 \$ 48,000 00 \$ 888,000 00 \$ 8788,000  Year 2 00 \$ 6,000 00 \$ 6,0	\$ 108,000   \$ 888,000   \$ 888,000   \$ 1788,000   \$ 1788,000   \$ 1788,000   \$ 6,000   \$	\$ 76,000 \$ 296,000 \$ 296,000  Year 4 \$ 2,000 \$ 2,000 \$ 2,000  Year 4 \$ 2,000  Stallations, and ume 60% of inc n an average of identification of the control	\$ 146,000 \$ 296,000 \$ 2,000 \$ \$ 2,00	per year per year per year per year per year USD (Nominal) Cost Unit: per participant per year  USD (Nominal) Cost Unit: per participant	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will he useral in the Participant is a function of total incentives paid directly to customers.  Incentives per participant is a function of total incentives paid directly to customers.  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the I2-month percentage change in the "all items" consumer price index available from the United

	Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C	\$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -		per participant per year of pilot life per participant per year of pilot life	Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT NON- ENERGY COSTS	Calculations & Other Explanation: Escalation rate	Year 1 3.825	Year 2	Year 3 3.82%	Year 4 3.82%	Year 5	(for each pilot analysis year)	For an escalation rate, we use
		Note, there are on-going costs for the unicontinually be replenished for the capture and raw material costs) is covered alread in place with customers. Essentially the reby-product has been reduced to cover respectively.	unit to function. by CleanO2 und curring revenue t	However this o ler the on-goin hat customers	category of cost g service agreen receive from Cle	(any O&M nent they put		
PARTICIPANT NON- ENERGY SAVINGS	Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C Calculations & Other Explanation:	Year 1 \$ 2,000 \$ 2,000 \$ 2,000	Year 2 \$ 2,000 \$ 2,000 \$ 2,000	Year 3 \$ 2,000 \$ 2,000 \$ 2,000	Year 4 \$ 2,000 \$ 2,000 \$ 2,000	\$ 2,000 \$ 2,000	USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any operating savings like water savings.
	Total Annual CO2 Captured By-product generated per kg of CO2 captured Revenue customer receives per year from sale of by-	3.14	kg CO2 / year kg of per kg of		The balanced o	hemical equation	on says that 112 kg of KOH will react with	44 kg of CO2 to form 138 kg of K2CO3 plus 18 kg of H2O.
PILOT LIFE	Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B Average Lifetime for Savings/Pilot Tech, Size C Calculations & Other Explanation:	20	years years years					
	Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C	89. 89.	Dth/Participa nt Dth/Participa	Estimated savi	ings based on m	anufacturer exp	ectations for overall GHG reduction and	assumed split between carbon capture savings and demand reduction savings
NATURAL GAS ENERGY SAVINGS: AVG. Dth/	Calgary, Alberta, Canada, which is smaller than the expected a	verage boiler application. on, 8200 kg CO2/year is a more typical exp	ectation for GHG larger unit (800)	emission redu 0 kg CO2E/yr)	ctions (from bot	th EE gains and on the categor	captured CO2) for boilers operating year les noted in the LCA study (listed below)	<u>Unk to summary. https://staticl.squarespace.com/static/62/f8140267a852825aa0eaf/t/6255d1a45d555</u> studying a system connected to a 250,000 BTU domestic hot water boiler in a 30,000 square foot office located in round, and typically they would expect systems to operate for 8 months of the year. For the purposes of this analysis, ).
PARTICIPANT SAVED	Total Reduction in Natural Gas Emissions:	2,905	kg CO2 / year		5,467	kg CO2 / year		
SAVED	Baseline scenario natural gas emissions:	12,063	kg CO2 / year			-		
	Natural gas emissions with unit in place:	9,158	kg CO2 / year					
	Savings from captured emissions:		kg CO2 / year		708	kg CO2 / year		
	Savings from boiler efficiency improvement (heat recovery):	2,000	kg CO2 / year		4,758	kg CO2 / year		
	Default Geologic Gas Emissions Factor Implied Gas Savings		kg CO2e/Dth Dth/year		89.3	Dth/year		
	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C	0.0	kWh/Participa kWh/Participa kWh/Participa	Units are kWh; coi	uld technically be of	ther non-NG. Avg. N	on-Gas Fuel Units/Fart. Saved will be used in the	Participant Cost tests for the NGIA evaluation criteria.
AVG. NON-GAS FUEL UNITS/ PART.	Avg. Additional Non-Gas Fuel Units/Part.Used, Size A Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C	993 993	kWh/Participa nt kWh/Participa	Avg. Additional No	on-Gas Fuel Units/Pa	art. Used will be use	d in the Participant Cost tests for the NGIA evalue	tition criteria.
	Calculations & Other Explanation:							

TOTAL ANNUAL Dth SAVED GRID MIX SCENARIO	Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C Calculations & Other Explanation: Grid Mix Scenario  Calculations & Other Explanation:	Year 1	6,519 13,2 13,277 26,6	Select one of the li	el Barannella Farra	ific generation mix	Dth Dth  count that: information for the renewable na	Natural gas energy savings that result from multiplying savings per participant times the total number of new participants in a given year and the savings per participant times the total number of new participants in a given year year year. It is reasonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix
LIFECYCLE GHG INTENSITY BY PROJECT SIZE	This section does not apply to all pilot types. The GHG chan GHG omissions (per unit of participation).  Lifecycle GHG Intensity, Size A Low Expected High  Lifecycle GHG Intensity, Size B Low Expected High  Lifecycle GHG Intensity, Size C Low Expected High  Lifecycle GHG Intensity, Size C Low Expected High  Calculations & Other Explanation:  Annual Production of CO2 in Baseline Scenario.  Annual Production of CO2 in Scenario with Unit Installed. Combustion Emission Reductions (already captured elsewhere).  Life Cycle Savings (LCA Size Unit).  Life Cycle Savings (LCA Size Unit) Life Cycle Savings (Updated Expected Average Unit Sizing) Again, scaling the LCA results based on new size here. Most of product can be used to displace other fossil fuel-based chem larger units should also scale this component of the GHG savin	Year 1  Year 1  Year 1  LCA Results*  : : : : : : the LCA savings are from how the lical inputs, and the lifecycle saving	Year 2  2,662 2,662  Year 2  2,662 2,662  Year 2  2,662 2,662  2,662 2,662  2,066 year kg CO2e / 2,000 year kg CO2e / 2,000 year 2,000 year 2,662 kg CO2e / 5,000 year 2,600 y	Year 3  The Loop Analy increase in pro-unit, transporte The Loop Appro The 2000 kg C the spreadshet	Year 4  Year 4  2,662  Year 4  2,662  Year 4  2,662  ysis (LCA) factors oduction of KOH reation of chemical oach is consistent to 23 / year reduc	Year 5 2,662 Year 5 2,662 Year 5 2,662 S in Annual Co equired for this, and manufe the principle to the prin	kg CO2e/participant kg CO2	The NGIA requires lifecycle GHG savings (e.g., RNG, hydrogen, carbon capture) this section accounts for the lifecycle change in Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGIA) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.  But the K2CO3 that is displaced by the unit's by-product, do by device, production of the feed chemicals required by capture the NGIA framework.  Solve the NGIA framework is subtracted from these savings simply because amount of savings for this pilot (taking it out here, so when it is
OTHER PILOT-SPEC	PIC PARAMETERS (formerly 'General Parameters' in CIP Calcu Peak Reduction Factor Calculations & Other Explanation:  Variable O&M Cost, Applies to all project sizes Calculations & Other Explanation:	Values now linked directly back to plan Year 1  Year 1  N/a	Utility Cost and nning assumptions tab (po Year 2	ssible given the comb Year 3 4 \$ 0.04  Year 3	pination of formerly Year 4  Year 4  Year 4	separate Exhibit Year 5 \$ 0.04 Year 5		The CP methodology is used for energy efficiency. However, the value for other innovative resources should be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the specific utility proposals. Peak Reduction Factor will be used in the context of specific utility proposals. For example, resources like power-to-hydrogen and RNG may not decrease OSM costs as they also need to be transported to customers on the distribution system. Variable OSM will be used in the Utility Cost and Non Participant Cost tests for the NGIA evaluation criteria.  Annual Escalation Rate calculated using the average percent change in the price of natural gas between 2023 through
NON-GAS FUEL COST	Non-Gas (i.e., Electric) Fuel Cost <u>Calculations &amp; Other Explanation:</u>	\$	USD (Nominal) Cost Unit: 44.14 per MWh					nod for strategic electrification should be considered in the context of specific utility pilot proposals. Minnesota Hub from January 1, 2022 to December 31, 2022 using data from Midwest Independent System Operator (MISO)

The CIP methodology is used for all resources other than strategic electrification. The method for strategic electrification should be considered in the context of specific utility pilot proposals. In the most recent CIP, Staff used the weighted average of the most recent loss factors reported by Minnesota Power, Xcel Energy, and Otter Tail Power's reported 2021 transmission and distribution loss factors and weighting by the utilities' 2017-2019 average retail sales

8.22%

Non-Gas Fuel Loss Factor

Calculations & Other Explanation:

NON-GAS FUEL LOSS FACTOR

	1									
OTHER QUANTITATI	IVE CRITERIA:									
			USD Cost Unit:							
				Generally no chang	e from CIP method	dology. The factor	is calculated using the final environmental cost valu	es approved by Minnesota Public Utilities	Commission (Commission).	The factors are reported in 2021 dollars in Table 2 below, which were
	Other Non-GHG Pollutants, Size A		0.37 per Dth	calculated by inflat	ing the Commissio	n's approved dolla	er per ton environmental cost values using escalatio	n rate to adjust by observed inflation bet	ween 2014 and 2021. Stakeh	olders expressed a preference for allowing utilities to select different
OTHER NON-GHG POLLUTANTS	Other Non-GHG Pollutants, Size B		0.07							than the metropolitan fringe value. Similarly, a project targeting a low-incom of requiring the use of median metropolitan fringe values for all non-GHG
TOLLUTANTO	Other Non-GHG Pollutants, Size C	\$	0.37 per Dth	pollutants, as show	n in Table 1 of the 0	Commission's Jan	uary 3, 2018 Order in Docket No. EII999/CI-14-643, u	tilities may use the value most applicable	for the pilot or measure.	
	Calculations & Other Explanation:									
		Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life		
	Net Direct Job Creation, Size A		4 8	8	9	10		38 50 # o	fjobs	Utilities should consider both jobs created by proposed pilots and jobs the
	Net Direct Job Creation, Size B		7 15		18	22		78 95 # o		may be eliminated by proposed pilots.
	Net Direct Job Creation, Size C		14 30	33	35	43	3	55 193 # o	fjobs	
		Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life		
	Net Indirect Job Creation, Size A Net Indirect Job Creation, Size B		2 4	5	5 10	13		22 30 # o 47 57 # o		Utilities should consider both jobs created by proposed pilots and jobs the may be eliminated by proposed pilots.
	Net Indirect Job Creation, Size C		9 19	20	21	26		94 116 # 0	fiobs	., , , , , ,
	, , , , , , , , , , , , , , , , , , , ,								,	
NET JOB CREATION										
NET JOB CREATION	Net Induced Job Creation, Size A	Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life  24 31 # o	fiohe	
	Net Induced Job Creation, Size A		4 9	10	11	13		48 60 # 0		
	Net Induced Job Creation, Size A		9 19		22			97 121 # 0	f iobs	
	Calculations & Other Explanation:  Job numbers are estimated as Full Time Equivalents (FTE) and	are rounded off.								
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:			
	Public Co-Benefits, Size A	\$	- \$ -	\$ -	\$ -		per year	Quantifiable in some cases. If this me	tric isn't quantifiable, there i	s space for any qualitative comments in the Additional Qualitative
PUBLIC CO-	Public Co-Benefits, Size B	\$	- \$ -	\$ -	\$ -	\$ -	per year	Considerations section below.		
BENEFITS	Public Co-Benefits, Size C	\$	- \$ -	\$ -	\$ -	\$ -	per year			
BENEFITS	Calculations & Other Explanation:									
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:			
	Water Pollution, Size A	\$	- \$ -	\$ -	\$ -	\$ -	per year			its on water pollution. This might be quantifiable for some of the projects. I Inments in the Additional Qualitative Considerations section below.
	Water Pollution, Size B Water Pollution, Size C	\$	- \$ -	\$ -	\$ -	\$ -	per year per year	this metric isn't quantifiable, there is	space for any qualitative cor	nments in the Additional Qualitative Considerations section below.
WATER POLLUTION	water Foliution, 3ize C	Ψ	- 9 -	φ -	φ -	Ψ -	per year			
	Calculations & Other Explanation:									
ADDITIONAL QUALI	TATIVE CONSIDERATIONS:									
NGIA Utility										
Techa Othicy										

Perspective Notes:

It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and CIP quantification

# NGIA Participants' Perspective Notes: Definition:

It is expected that many of the elements of the participant perspective, with respect to the direct effect of pilots, will be quantifiable and will rely on the structural values. Add here any information related to some direct effects of pilots on participants that may not be easily quantifiable. For example, increased comfort in a home and health benefits from pilots that improve indoor air quality are two examples of benefits that may be difficult to quantify.

	May assist MN businesses in achieving GHG goals	
NGIA		
NGIA Nonparticipating		
Customers' Perspective Notes:		
	As with the utility perspective, the direct effects of pilot programs on non-participating customers should be	
Definition:	quantified in most cases and can be heavily informed by structural values.	
Definition:	structural values.	
Effects on Other		
Energy Systems		
and Energy Security: Definition:		
Definition:	NGIA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utility and its customers. Measures like strategic electrification specifically require gas utilities and the Commission to avoid negative effects on the electric system. Further, the NGIA empowers the Commission to consider a wide variety of "costs and benefits that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel	
	markets.	
	Reduces overall energy consumption	
GHG Emissions		
Notes: Definition:		
Definition:	An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.	
Other Pollution		
Notes: Definition:	Include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice	
	effects of the pilot related to non-GHG pollution.	
Waste Reduction and Reuse Notes:		
Definition:	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes reduction of water use.	
Policy Notes:		
	NGIA is intended to help the state achieve certain	
Definition:	environmental policy goals including geologic gas throughput	
Dennition.	reduction and increased use of renewable resources. Reduces fossil gas throughput	
Net Job Creation Notes:		
<u>Notes:</u>		
	An innovation plan must include, as applicable, "projected local job impacts resulting from implementation of the plan."	
Definition:	local job impacts resulting from implementation of the plan."  Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.	
Sennidon:	process and jobs that that the committee by proposed prioris.	
<u>Economic</u>		
<u>Development</u>		
Notes: Definition:	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support	
	apprenticeships or training opportunities would provide additional economic benefits.  Manufacturer intends to establish MN office in 2023	

# ublic Co-Benefits

<mark>Notes:</mark> Definition.

## <u>Market</u> Development

Notes: Definition:

May help MN businesses appeal to customers interested in sustainability; carbon capture will produce by-products for resale

### Direct Innovation Support Notes:

efinition:

This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA.40 are unlikely to produce significant benefits on their own but are intended to lead to future opportunities.

Opportunity for customers to learn about novel options for reducing GHGs from their systems; version 4 unit is forthcoming with expected larger carbon capture percentages and application to more building types

#### Resource Scalability and Role in a Decarbonized System Notes: efinition.

While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state. Carbon capture may be used in conjunction with RNG to drive net negative emissions

<u> </u>		Click here to go back to the list of all pilots					NGIA Pilot Profiles Workbook		
CICF	CNP14 - New Networked Geothermal Systems Pilot								
	Pilot Project Code:	CNP14							
	Pilot Project Name: Customer Class/ Sector:	New Networked Geothermal Systems Pilot C&I & Res							
		Y - preference for location in a low income							
	Low-Income Community Benefit?	community							
	Target Area: Primary Innovative Resource Category:	Urban District Energy	Select primary Innovation Cate	one Others on he list	and bases				
	Primary innovative Resource Category:	District Energy	Select primary innovation cate	gory. Others can be list	ed riere.				
	Pilot Description:								
DESCRIPTION	CenterPoint Energy proposes to develop a new networked geothermal system their own geothermal wells or air source heat pumps). The pilot begins with a fee								
	Overview of Program / Implementation Approach: The proposed approach follows pilots being planned by gas utilities, including N distribution system at the same time. In addition to converting gas space and we participant fee from customers in the participating neighborhood.								
	Other Comments / Information:								
	Metrics are applied on a per-ton basis, with different size assumptions (200 ton	s, 500 tons, and 1,000 tons of total heating/cooling	capacity, installed in phases over	a 5 year period). A neig	hborhood including a low-	income communit	y with varied loads (residential, retail, office	, grocery) is preferred.	
					-				
	There is significant uncertainty in the costs and savings that would result from the	is pilot, and a more detailed engineering study, nei	ghborhood selection, and system	design is required to bet	tter understand the oppor	tunity for CenterPo	oint Energy.		
EY PILOT-SPECIFIC	INPUTS:								
	Pilot Year	Year 1	Year 2	Year 3	Year 4	Year 5			
	Calendar Year	20		2026	2027	202			
	Size A: 200 Ton Heating/Cooling Capacity Size B: 500 Ton Heating/Cooling Capacity		0 0	100 200	100 300	(	Units: Tons, shown as the incremental tons installed	d each year (not cumulative total); Includes a rough approximation of hos	w capital investment for large pilot options might be spread over multiple
	Size C: 1000 Ton Heating/Cooling Capacity		0 0	200	400	400	)		
	Unit of Participation	Tons Heating/Cooling Capacity					_		
	Calculations & Other Explanation:								
NUMBER OF		Year 1	Year 2	Year 3	Year 4	Year 5			
PARTICIPANTS									
	Cumulative Networked Geothermal System Size (Tons Capacity), Size	A -		100	200	200			
	Cumulative Networked Geothermal System Size (Tons Capacity), Size	в -	-	200	500	500			
		_		200	600	1000			
	Cumulative Networked Geothermal System Size (Tons Capacity), Size	в -		200	600	1,000			
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		
	Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B	\$ 410,000 \$ 449,18	0 \$ 483,827 \$ 9 \$ 1,074,381 \$	515,050 \$ 1,161,828 \$	637,928 \$ 1463.807 \$	751,282	total cost per year total cost per year	These incremental utility costs are what will count against the NGIA be	oudget cap for this measure and will be used in the Utility Cost, and Non n of utility admin costs to run pilot, any incentive funding to support proje
	Annual Total Utility Incremental Cost, Size C	\$ 638,37		2,269,958 \$	2,628,161 \$		total cost per year	deployment, and/or the utility's annual revenue requirement for capit	tal investments made on select pilots.
	Fixed O&M Cost, Size A	Year 1 410,000	Year 2 0 \$ 483,827 \$	Year 3 458.827 \$	Year 4 494,121 \$	Year 5	USD (Nominal) Cost Unit: total cost per year	Fixed OSM Cost is the result of adding up Total Project Delivery Adv	ertising and Promotions, Utility Administration, Trade Ally Incentives, and
	Fixed O&M Cost, Size B	\$ 449,18	9 \$ 1,074,381 \$	1,049,381 \$	1,119,969 \$	1,275,851	total cost per year	Workforce Development of Market Transformation Cost	ertaing and remotions, comy summatration, trade say incentives, and
	Fixed O&M Cost, Size C	\$ 638,37	8 \$ 2,182,511 \$	2,157,511 \$	2,228,100 \$		total cost per year		
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		
	Total Project Delivery, Size A	\$ 385,000	0 \$ 458,827 \$	458,827 \$	494,121 \$	579,415	per year	Total internal and external project delivery	
	Total Project Delivery, Size B	\$ 424,189 \$ 613,379	9 \$ 1,049,381 \$ 8 \$ 2,157,511 \$	1,049,381 \$ 2,157,511 \$	1,119,969 \$ 2,228,100 \$	1,275,851	per year per year		
	Total Project Delivery, Size C	\$ 613,371	8 \$ 2,107,011 \$	2,157,511 \$	2,228,100 \$	2,419,276	per year		
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	_	
	Internal Project Delivery, Size A Internal Project Delivery, Size B	\$ 150,00 \$ 189,18	0 \$ 150,000 \$ 9 \$ 189,189 \$	150,000 \$ 189,189 \$	185,294 \$ 259,777 \$	220,588	per year per year	CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" ca	itegory above.
	Internal Project Delivery, Size C	\$ 378,378		378,378 \$		590,143	per year		
	, "		-					=	
	External Project Delivery, Size A	Year 1 235,000	Year 2	Year 3 308,827 \$	Year 4 308.827 \$	Year 5	USD (Nominal) Cost Unit: per year	External wander coets would include direct install coets where CNP re	eimburses the vendor. These costs are sub-set of the Utility "Fixed O&M
	External Project Delivery, Size B	\$ 235,000	0 \$ 860,191 \$	860,191 \$	860,191 \$	910,191	per year	Cost*category above.	ambalaca the vender. These costs are sub-set of the othery Tixed Out-
	External Project Delivery, Size C	\$ 235,000	0 \$ 1,779,133 \$	1,779,133 \$	1,779,133 \$	1,829,133	per year		
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		
	Advertising and Promotions, Size A	\$25.00		- \$		rear 5	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category abo	ove.
	Advertising and Promotions, Size B	\$25,00	00 \$25,000 \$	- \$	- \$	-	per year	,	
	Advertising and Promotions, Size C	\$25,00	00 \$25,000 \$	- \$	- \$	-	per year		
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		
	Allocation of General Portfolio Costs, Size A	\$	\$ - \$	-  \$	- \$	-	per year	Share of portfolio level costs, including plan development costs, regu	alatory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size B		- \$	- \$	- \$	-	per year		
	Allocation of General Portfolio Costs, Size C	\$ -	\$ - \$	- \$	- \$	-	per year		
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		
	Trade Ally Incentives, Size A	\$ -	\$ - \$	- \$	- \$	-	per year	If applicable, include here the annual amount of trade ally incentives	(e.g. midstream program)
	Trade Ally Incentives, Size B	s -	\$ - \$	- \$	- \$		per year		

Year 3

Year 2

Year 4

- \$

Year 1

Workforce Development or Market Transformation Cost, Size A

USD (Nominal) Cost Unit:

per year

These costs are sub-set of the Utility "Fixed O&M Cost" category above.

Year 5

1	Workforce Development or Market Transformation Cost, Size B								
	Workforce Development or Market Transformation Cost, Size B Workforce Development or Market Transformation Cost, Size C	\$	- \$	- \$	- \$	- \$		per year per vear	
UTILITY PILOT	Worklorde Bevelopment of Plantet Transformation Good, Gize G	ů				v		poryeur	
COSTS		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	_
	Other Fixed O&M Cost, Size A Other Fixed O&M Cost, Size B	\$	- \$	- \$	- \$	- \$	-	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Other Fixed O&M Cost, Size B Other Fixed O&M Cost, Size C	\$	- 5	- 5	- 3	- 3		per year per year	
	Other Fixed Odder Cost, Size C	Ţ.						* '	
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	<u> </u>
	Total utility capital investment, Size A	\$	- \$	- \$	617,647 \$	617,647 \$	-	per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital
	Total utility capital investment, Size B Total utility capital investment. Size C	\$	- \$ - \$	- \$ - \$	1,235,294 \$ 1,235,294 \$	1,852,941 \$ 2,470,588 \$	2 470 500	per year 8 per year	incremental costs for MGIA, but instead will be used to estimate the timing and level or annual revenue requirement resulting from these capital investments (shown below).
	l otal utility capital investment, Size C	\$	- 5	- 5	1,235,294 \$	2,470,588 \$	2,470,588	B per year	
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Est. Annual Revenue Requirement for Capital Projects, Size A	\$	- \$	- \$	56,223 \$	143,807 \$	171,86	7 per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as
	Est. Annual Revenue Requirement for Capital Projects, Size B Est. Annual Revenue Requirement for Capital Projects. Size C	\$	- \$	- \$	112,447 \$	343,838 \$	431,318	per year	well as the utility 'Fixed O&M Costs' captured above. This revenue requirement is calculated from the magnitude & timing of capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
	Est. Annual Revenue Requirement for Capital Projects, Size C	\$	- \$	- 5	112,447 \$	400,062	743,796	per year	
		Total		minal) Cost Unit:					
	Est. Total Revenue Requirement for Capital Projects, Size A	\$	3,705,572 total cost	t					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to calculate any
	Est. Total Revenue Requirement for Capital Projects, Size B Est. Total Revenue Requirement for Capital Projects, Size C	\$	9,263,930 total cost 18,527,861 total cost						of the NGIA evaluation criteria.
	Est. Fotal Novellae Requirement for Suprair Fojecto, Sizo S	· ·	10,027,001						
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	<u> </u>
	Incentives, Size A	\$	- \$	- \$	- \$	- \$	-	per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc.). Do not include here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install
	Incentives, Size B Incentives, Size C	S	- \$	- \$	- \$	- \$	-	per year per year	measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will be used
	incentives, size C	3	- 3	- 1	- 4	-   \$		per year	in the Bertinians Coat teats for the NOA evolution exiteria
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives per Participant, Size A	#DIV/0!		#DIV/0! \$	- \$	-	#DIV/O!	per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size B	#DIV/0!		#DIV/0! \$	- \$	-	#DIV/0!	per participant per year	
	Incentives per Participant, Size C	#DIV/0!		#DIV/0! \$	- \$	- \$	-	per participant per year	
	Calculations & Other Explanation:	Feasibility One of the more comprehensive cos	Study Cost:	\$200,000		ost for Whole Pilot:	\$50,00	10	
								ch are then used to estimate costs for diff	vent vilat since have
									if encly pilot sizes here. 'Gas' study in Massachussets. More specifically using the base cost option for medium-density mixed neighborhoods (e.g. mic
	CapEx (HEET/BuroHappold	): \$	8,824 per ton	oux per tor, milerare	moteda dom g networket	Beogliciiiai ovi Ex coc	t data provided by	Total \$ per	ton
	GSHPs (National Grid		-	\$967	\$1.934	\$967	\$		867
	CapEx (National Grid)	): <b>\$</b>	-	\$1,717	\$3,433	\$1,717	\$0	0 \$6	867 row 140 instead)
	OpEx- Internal Project Delivery (National Grid		405 \$	405 \$					946 \$1,892 Internal Project Delivery after Marketing Costs Removed
	OpEx- External Project Delivery (National Grid		38 \$	1,052 \$	1,876 \$	1,025 \$	173		,163
	Customer Co-pay (National Grid		<b>\$</b> O	(\$31)	(\$153)	(\$276)	(\$218	B) -5	679
	Size		200 Tons						MA
	Size	<u> </u>	500 Tons					\$16	164 per ton (after customer co-pay)
		<u> </u>			Annual O&M Co	osts as % of CAPEX: 49	<b>.</b>	\$16	.164 per ton (after customer co-pay) 843 per ton (total cost without customer co-pay)
	Size	<u> </u>	500 Tons		Annual O&M Co	osts as % of CAPEX: 4%		\$16 \$16	
	Size s	<u> </u>	500 Tons 1000 Tons	Year 2	Year 3	osts as % of CAPEX: 4%	Year 5	\$16 \$16 USD (Nominal) Cost Unit:	843 per ton (total cost without customer co-pay)
	Size I Size I Total Pilot Upfront Costs, Size A		500 Tons 1000 Tons 28,504 \$	28,504 \$	Year 3 28,504 \$	Year 4 28,504 \$	Year 5 28,504	SIE \$16 USD (Nominal) Cost Unit:    per participant	843 per ton (total cost without customer co-pay)  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital
	Size : Size :  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size A		500 Tons 1000 Tons 28,504 \$ 28,504 \$	28,504 \$ 28,504 \$	Year 3  28,504 \$  28,504 \$	Year 4 28,504 \$ 28,504 \$	Year 5 28,504 28,504	SIG	843 per ton (total cost without customer co-pay)
	Size I Size I Total Pilot Upfront Costs, Size A		500 Tons 1000 Tons 28,504 \$	28,504 \$	Year 3 28,504 \$	Year 4 28,504 \$	Year 5 28,504 28,504	SIE \$16 USD (Nominal) Cost Unit:    per participant	### 1843 per ton (total cost without customer co-pay)    This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor
	Size : Size :  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size A	Year 1 \$ \$ \$ \$ \$ \$ \$	500 Tons 1000 Tons 28,504 \$ 28,504 \$	28,504 \$ 28,504 \$	Year 3  28,504 \$  28,504 \$	Year 4  28,504 \$ 28,504 \$ 28,504 \$	Year 5 28,504 28,504 28,504	\$16  USD (Nomina) Cost Unit:  1 per participant per participant per participant per participant	### 1843 per ton (total cost without customer co-pay)    This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor
	Size Size 1  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C		500 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$	28,504 \$ 28,504 \$ 28,504 \$	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3	Year 4  28,504 \$ 28,504 \$ 28,504 \$  Year 4	Year 5 28,504 28,504 28,504 Year 5	USD (Nominal) Cost Unit:  USD (Nominal) Cost Unit:  per participant per participant USD (Nominal) Cost Unit:	P43 per ton (total cost without customer co-pay)  This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program action costs.
	Size : Size :  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size A	Year 1 \$ \$ \$ \$ \$ \$ \$	500 Tons 1000 Tons 28,504 \$ 28,504 \$	28,504 \$ 28,504 \$	Year 3  28,504 \$  28,504 \$	Year 4  28,504 \$ 28,504 \$ 28,504 \$	Year 5 28,504 28,504 28,504 4 Year 5 2,647	USD (Nominal) Cost Unit:  USD (Nominal) Cost Unit:  per participant per participant per participant USD (Nominal) Cost Unit: 7 per participant	### This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor viculed utility program admin costs.  If there are expectations for external funding sources (e.g. IRA etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGM evaluation criteria is this case we are assuming project would qualify for 30% investment tax credit pursumt to
	Size Size I  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A	Year 1 \$ \$ \$ \$ \$ \$ \$	500 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$	28,504 \$ 28,504 \$ 28,504 \$  Year 2 2,647 \$	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3	Year 4  28,504 \$ 28,504 \$ 28,504 \$  Year 4  2,647 \$	Year 5 28,504 28,504 28,504 4 Year 5 2,647	USD (Nominal) Cost Unit:    per participant	### This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  ## there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGM evaluation criteria in this case we are assuming project would qualify for 30% investment tax credit pursuant to 25 USCA 98 as an energy storage facility (which includes thermal energy storage for property as defined in 25 USCA 98 as use labor requirement.
	Size Size 1  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size A	Year 1 \$ \$ \$ \$ \$ \$ \$	500 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 2,647 \$ 2,647 \$ 2,647 \$	28,504 \$ 28,504 \$ 28,504 \$  Year 2  2,647 \$ 2,647 \$ 2,647 \$	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3  2,647 \$ 2,647 \$ 2,647 \$	Year 4  28,504 \$ 28,504 \$ 28,504 \$  Year 4  2,647 \$ 2,647 \$ 2,647 \$	Year 5 28,504 28,504 28,504 4 Year 5 2,647	USD (Nominal) Cost Unit:  USD (Nominal) Cost Unit:  per participant per participant per participant USD (Nominal) Cost Unit: 7 per participant	### This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor viculed utility program admin costs.  If there are expectations for external funding sources (e.g. IRA etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGM evaluation criteria is this case we are assuming project would qualify for 30% investment tax credit pursumt to
	Size Size 1  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B	Year 1 \$ \$ Year 1 \$ \$  Year 1  RA funding shown above assumed to	500 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 2,647 \$ 2,647 \$ 2,647 \$	28,504 \$ 28,504 \$ 28,504 \$  28,504 \$  Year 2  2,647 \$ 2,647 \$ 3,647 \$  \$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$	Year 3  28.504 \$ 28.504 \$ 28.504 \$  Year 3  2.647 \$ 2.647 \$ 2.647 \$ 2.647 \$ 2.647 \$ 2.647 \$	Year 4  28.504 \$ 28.504 \$ 28.504 \$  7	Year 5 28,504 28,504 28,504 Year 5 2,647 2,647	USD (Nominal) Cost Unit:  4 per participant 4 per participant 4 per participant USD (Nominal) Cost Unit: 7 per participant 7 per participant 7 per participant 7 per participant	### This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  ## there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGM evaluation criteria in this case we are assuming project would qualify for 30% investment tax credit pursuant to 25 USCA 98 as an energy storage facility (which includes thermal energy storage for property as defined in 25 USCA 98 as use labor requirement.
	Size  Size i  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size C  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:	Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	500 Tons 1000 Tons  28,504 \$ 28,504 \$ 28,504 \$ 28,504 \$  2,647 \$ 2,647 \$ 2,647 \$ reduce CNP capital control to the second	28,504 \$ 28,504 \$ 28,504 \$  28,504 \$  Year 2  2,647 \$ 2,647 \$ 2,647 \$  sts, does not reduce \$  Year 2	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3  Year 3  2,647 \$ 2,647 \$  2,647	Year 4  28,504 \$ 28,504 \$ 28,504 \$  28,504 \$  Year 4  2,647 \$ 2,647 \$ 2,647 \$	Year 5 28,504 28,504 28,504 Year 5 2,647 2,647 Year 5	USD (Nominal) Cost Unit:  USD (Nominal) Cost Unit:  per participant  per participant USD (Nominal) Cost Unit:  per participant  per participant  per participant  per participant  USD (Nominal) Cost Unit:  USD (Nominal) Cost Unit:	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 25 LOSC 485 as a neergy storage facility (which includes thermal energy storage property as defined in 2015 C48) scanse labor requirements will be satified so as to qualify for 30% as opposed to 6% do not assume that project is installed in an energy community, which would increase
TOTAL AND DIREC	Size Size Size Size Size Size Size Size	Year 1 \$ \$ Year 1 \$ \$  Year 1  RA funding shown above assumed to	500 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 2,647 \$ 2,647 \$ 0 reduce CNP capital cor	28,504 \$ 28,504 \$ 28,504 \$  28,504 \$  Year 2  2,647 \$ 2,647 \$ 2,647 \$  5,647 \$ 4,647 \$ 679 \$	Year 3	Year 4  28,504 \$ 28,504 \$ 28,504 \$  28,504 \$  Year 4  2,647 \$ 2,647 \$  Year 4  Year 4	Year 5  28,504  28,504  28,504  28,504  Year 5  2,647  2,647  Year 5  675	USD (Nominal) Cost Unit:  4 per participant 4 per participant 4 per participant USD (Nominal) Cost Unit: 7 per participant 7 per participant 9 per participant 1 USD (Nominal) Cost Unit: 9 per participant USD (Nominal) Cost Unit: 9 per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor viculed utility program admin costs.  If there are expectations for external funding sources (e.g. ISA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria is in this case we are assuming project would qualify for 30% investment tax credit pursuant to 26 USC 48E as an energy storage facility (which includes thermal energy storage property as defined in 26 USC 48), assume labor requirements will be satisfied so as to qualify for 30% as opposed to 6% do not assume that project is installed in an energy community, which would increase  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted
PARTICIPANT PILO	Size Size Size Size A Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A	Year 1 \$ \$ Year 1 \$ \$  Year 1  RA funding shown above assumed to	500 Tons 1000 Tons  28,504 \$ 28,504 \$ 28,504 \$ 28,504 \$  2,647 \$ 2,647 \$ 2,647 \$ reduce CNP capital control to the second	28,504 \$ 28,504 \$ 28,504 \$  28,504 \$  Year 2  2,647 \$ 2,647 \$ 2,647 \$  sts, does not reduce \$  Year 2	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3  Year 3  2,647 \$ 2,647 \$  2,647	Year 4  28,504 \$ 28,504 \$ 28,504 \$  28,504 \$  Year 4  2,647 \$ 2,647 \$ 2,647 \$	Year 5 28,504 28,504 28,504 Year 5 2,647 2,647 Year 5 678	USD (Nominal) Cost Unit:  4 per participant  4 per participant  5 per participant  USD (Nominal) Cost Unit:  7 per participant  7 per participant  USD (Nominal) Cost Unit:  9 per participant  USD (Nominal) Cost Unit:  9 per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 25 LOSC 485 as a neergy storage facility (which includes thermal energy storage property as defined in 2015 C48) scanse labor requirements will be satified so as to qualify for 30% as opposed to 6% do not assume that project is installed in an energy community, which would increase
	Size Size Size Size Size Size Size Size	Year 1 \$ \$ Year 1 \$ \$  Year 1  RA funding shown above assumed to	500 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 2,647 \$ 2,647 \$ 0 reduce CNP capital cor	28,504 \$ 28,504 \$ 28,504 \$  28,504 \$  Year 2  2,647 \$ 2,647 \$ 2,647 \$  5,647 \$ 4,647 \$ 679 \$	Year 3	Year 4  28,504 \$ 28,504 \$ 28,504 \$  28,504 \$  Year 4  2,647 \$ 2,647 \$  Year 4  Year 4	Year 5 28,504 28,504 28,504 Year 5 2,647 2,647 Year 5 678	USD (Nominal) Cost Unit:  4 per participant 4 per participant 4 per participant USD (Nominal) Cost Unit: 7 per participant 7 per participant 9 per participant 1 USD (Nominal) Cost Unit: 9 per participant USD (Nominal) Cost Unit: 9 per participant	This represents the total equipment and installation costs for technologies implemented as past of this plot (specifically non-utility capital rejects that were captured apparently above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGAI evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 USC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 USC 485, assume later requirements will be satisfied on a selection of the control of t
PARTICIPANT PILO	Size Size Size Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size C	Year 1  S S S Year 1  S S S FIRA funding shown above assumed to Year 1  S S S S S S S S S S S S S S S S S S	500 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 2,647 \$ 2,647 \$ 0 reduce CNP capital cor	28,504   \$ 28,504   \$ 28,504   \$  Year 2  2,647   \$ 2,647   \$ 2,647   \$ 4,647   \$ 679   \$ 679   \$ 679   \$	Year 3  28,504 \$ 28,504 \$  28,504 \$  Year 3  48,704 \$  2,647 \$ 2,647 \$  2,647 \$  2,647 \$  2,647 \$  679 \$  679 \$  679 \$	Year 4  28,504 \$ 28,504 \$ 28,504 \$ \$   Year 4  Year 4  Year 4  679 \$ 679 \$ 679 \$	Year 5 28.504 28.504 28.504 Year 5 2.647 2.647 Year 5 675 675	USD (Nominal) Cost Unit:  4 per participant  4 per participant  5 per participant  USD (Nominal) Cost Unit:  7 per participant  7 per participant  USD (Nominal) Cost Unit:  9 per participant  USD (Nominal) Cost Unit:  9 per participant	This represents the total equipment and installation costs for technologies implemented as past of this plot (specifically non-utility capital rejects that were captured apparently above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGAI evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 USC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 USC 485, assume later requirements will be satisfied on a selection of the control of t
PARTICIPANT PILO	Size Size Size Size A Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A	Year 1  S S S Year 1  S S RA funding shown above assumed to Year 1  S S S Year 1  Year 1  Year 1	500 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 2,647 \$ 2,647 \$ 0 reduce CNP capital cor	28,504 \$ 28,504 \$ 28,504 \$ \$ 28,504 \$ \$ \$ \$ 28,504 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 3	Year 4  28,504 \$ 28,504 \$ 28,504 \$  28,504 \$  Year 4  2,647 \$ 2,647 \$  Year 4  Year 4	Year 5 28,504 28,504 28,504 Year 5 2,647 2,647 Year 5 675 675 675 Year 5	USD (Nominal) Cost Unit:    per participant	This represents the total equipment and installation costs for technologies implemented as past of this plot (specifically non-utility capital rejects that were captured apparently above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGAI evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 USC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 USC 485, assume later requirements will be satisfied on a selection of the control of t
PARTICIPANT PILO	Size Size Size Size Size Size Size Size	Year 1  S S S Year 1  S S RA funding shown above assumed to Year 1  S S S Year 1  Year 1  Year 1	28.504   \$   28.504   \$   28.504   \$   28.504   \$   28.504   \$   28.504   \$   26.47   \$	28,504   \$ 28,504   \$ 28,504   \$  Year 2  2,647   \$ 2,647   \$ 2,647   \$ 4,647   \$ 679   \$ 679   \$ 679   \$	Year 3  28.504 \$ 28.504 \$ 28.504 \$  Year 3  2.647 \$ 2.647 \$ 2.647 \$ 2.647 \$ 2.647 \$ 2.647 \$ 3  Year 3  799 \$ 679 \$ 679 \$ 799 \$ 799 \$	Year 4  28.504 \$ 28.504 \$ 28.504 \$ 7	Year 5 28,504 28,504 28,504 Year 5 2,647 2,647 Year 5 675 675 675 Year 5	USD (Nominal) Cost Unit:  4 per participant  4 per participant  5 per participant  USD (Nominal) Cost Unit:  7 per participant  7 per participant  USD (Nominal) Cost Unit:  9 per participant  USD (Nominal) Cost Unit:  9 per participant	This represents the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the save capitured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 LISC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 LISC 48); assume labor requirements will be satisfied so as to qualify for 30% as opposed to 6% do not assume that protect resided in an energy community, which would interest will be satisfied as to a constructed or a participant in this participant in this participant in this participant is a calculated value, where utility incentives are substanted from the total sufficion project costs. Duced Participants after this participant is the participant of the participant in this participant is the participant of the participant in the Participant case starts for the NGA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILO	Size Size Size Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size C  Calculations & Other Explanation.  Escalation rat	Year 1  S S S S Year 1  S S S S  Year 1  S S S S RA funding shown above assumed to Year 1 S S S S Year 1 S S S S S S S S S S S S S S S S S S S	\$50 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28.504 \$ 28.504 \$ 28.504 \$ 26.47 \$ 26.47 \$ 26.47 \$ 26.47 \$ 26.47 \$ 26.47 \$ 26.47 \$ 26.47 \$ 26.47 \$ 26.47 \$ 3.82%	28504   \$ 28504   \$ 28504   \$ 28504   \$ \$ 28504   \$ \$ \$ 2647   \$ \$ 2647   \$ \$ \$ 2647   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3  2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$  2,647 \$ 679 \$ 679 \$ 679 \$ 799 \$ 470 \$ 470 \$	Year 4  28,504 \$ 28,504 \$ 28,504 \$ \$  Year 4  3,82%	Year S 28,504 28	USD (Nominal) Cost Unit:    per participant	This represents the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the save capitured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 LISC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 LISC 48); assume labor requirements will be satisfied so as to qualify for 30% as opposed to 6% do not assume that protect resided in an energy community, which would interest will be satisfied as to a constructed or a participant in this participant in this participant in this participant is a calculated value, where utility incentives are substanted from the total sufficion project costs. Duced Participants after this participant is the participant of the participant in this participant is the participant of the participant in the Participant case starts for the NGA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILO	Size Size Size Size Size Size Size Size	Year 1  S S S S Year 1  S S S S  Year 1  S S S S RA funding shown above assumed to Year 1 S S S S Year 1 S S S S S S S S S S S S S S S S S S S	\$00 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28.504 \$ 28.504 \$ 28.504 \$ 28.504 \$ 26.47 \$ 2	28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$  Year 2  2.647   \$ 2.647   \$ 2.647   \$ 5.679   \$ 679   \$ 679   \$  Year 2  Year 2  3.82%	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3  2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 3  4679 \$ 679 \$ 679 \$ 679 \$ 470 \$ 47	Year 4  28.504 \$ 28.504 \$ 28.504 \$ \$ 78.504 \$ \$ \$ 78.504 \$ \$ \$ \$ 78.504 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year S  28,504 28,504 28,505 Year S  2,647 2,647 2,647  Year S  675 675 675 793 794 Storage facility	USD (Nominal) Cost Unit:    per participant	This represents the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the save capitured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 LISC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 LISC 48); assume labor requirements will be satisfied so as to qualify for 30% as opposed to 6% do not assume that protect resided in an energy community, which would interest will be satisfied as to a constructed or a participant in this participant in this participant in this participant is a calculated value, where utility incentives are substanted from the total sufficion project costs. Duced Participants after this participant is the participant of the participant in this participant is the participant of the participant in the Participant case starts for the NGA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILO	Size Size Size Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size C  Calculations & Other Explanation.  Escalation rat	Year 1  S S S S Year 1  S S S S  Year 1  S S S S RA funding shown above assumed to Year 1 S S S S Year 1 S S S S S S S S S S S S S S S S S S S	\$00 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 26	28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ 28	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3  2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$  2,647 \$ 679 \$ 679 \$ 679 \$ 799 \$ 470 \$ 470 \$	Year 4  28,504 \$ 28,504 \$ 28,504 \$ 28,504 \$ \$ 4 \$ 2,647 \$ \$ 2,647 \$ \$ 2,647 \$ \$ 6,79 \$ \$ \$ 6,79 \$ \$ 6,	Year S 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,647 28,647 28,647 49,647 5,678 678 Year S Year S 3,822 Year S 4,822 Y	USD (Nominal) Cost Unit:    per participant	This represents the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the save capitured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 LISC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 LISC 48); assume labor requirements will be satisfied so as to qualify for 30% as opposed to 6% do not assume that protect resided in an energy community, which would interest will be satisfied as to a constructed or a participant in this participant in this participant in this participant is a calculated value, where utility incentives are substanted from the total sufficion project costs. Duced Participants after this participant is the participant of the participant in this participant is the participant of the participant in the Participant case starts for the NGA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILO	Size Size Size Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size C  Calculations & Other Explanation.  Escalation rat	Year 1  S S S S Year 1  S S S S  Year 1  S S S S RA funding shown above assumed to Year 1 S S S S Year 1 S S S S S S S S S S S S S S S S S S S	\$00 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 26	28,504   \$   28,504   \$   28,504   \$   28,504   \$   \$   28,504   \$   \$   \$   \$   \$   \$   \$   \$   \$	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3  2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 3,679 \$ 679 \$ 679 \$ 470 \$ 470	Year 4  28,504 \$ 28,504 \$ 28,504 \$ 28,504 \$ \$ 4 \$ 2,647 \$ \$ 2,647 \$ \$ 2,647 \$ \$ 6,79 \$ \$ \$ 6,79 \$ \$ 6,	Year S 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,647 28,647 28,647 49,647 5,678 678 Year S Year S 3,822 Year S 4,822 Y	USD (Nominal) Cost Unit:    per participant	This represents the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the save capitured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 LISC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 LISC 48); assume labor requirements will be satisfied so as to qualify for 30% as opposed to 6% do not assume that protect resided in an energy community, which would interest will be satisfied as to a constructed or a participant in this participant in this participant in this participant is a calculated value, where utility incentives are substanted from the total sufficion project costs. Duced Participants after this participant is the participant of the participant in this participant is the participant of the participant in the Participant case starts for the NGA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILO	Size Size Size Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size C  Calculations & Other Explanation.  Escalation rat	Year 1  S S S S Year 1  S S S S  Year 1  S S S S RA funding shown above assumed to Year 1 S S S S Year 1 S S S S S S S S S S S S S S S S S S S	\$00 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 26	28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ 28	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3  2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 3,679 \$ 679 \$ 679 \$ 470 \$ 470	Year 4  28,504 \$ 28,504 \$ 28,504 \$ 28,504 \$ \$ 4 \$ 2,647 \$ \$ 2,647 \$ \$ 2,647 \$ \$ 6,79 \$ \$ \$ 6,79 \$ \$ 6,	Year S 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,647 28,647 28,647 49,647 5,678 678 Year S Year S 3,822 Year S 4,822 Y	USD (Nominal) Cost Unit:    per participant	This represents the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the save capitured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 LISC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 LISC 48); assume labor requirements will be satisfied so as to qualify for 30% as opposed to 6% do not assume that protect resided in an energy community, which would interest will be satisfied as to a constructed or a participant in this participant in this participant in this participant is a calculated value, where utility incentives are substanted from the total sufficion project costs. Duced Participants after this participant is the participant of the participant in this participant is the participant of the participant in the Participant case starts for the NGA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILO	Size Size Size Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size C  Calculations & Other Explanation.  Escalation rat	Year 1  S S S S Year 1  S S S S  Year 1  S S S S RA funding shown above assumed to Year 1 S S S S Year 1 S S S S S S S S S S S S S S S S S S S	\$00 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 26	28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ 28	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3  2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 3,679 \$ 679 \$ 679 \$ 470 \$ 470	Year 4  28,504 \$ 28,504 \$ 28,504 \$ 28,504 \$ \$ 4 \$ 2,647 \$ \$ 2,647 \$ \$ 2,647 \$ \$ 6,79 \$ \$ \$ 6,79 \$ \$ 6,	Year S 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,647 28,647 28,647 49,647 5,678 678 Year S Year S 3,822 Year S 4,822 Y	USD (Nominal) Cost Unit:    per participant	This represents the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the save capitured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 LISC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 LISC 48); assume labor requirements will be satisfied so as to qualify for 30% as opposed to 6% do not assume that protect resided in an energy community, which would interest will be satisfied as to a constructed or a participant in this participant in this participant in this participant is a calculated value, where utility incentives are substanted from the total sufficion project costs. Duced Participants after this participant is the participant of the participant in this participant is the participant of the participant in the Participant case starts for the NGA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILO	Size Size Size Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size C  Calculations & Other Explanation.  Escalation rat	Year 1  S S S S Year 1  S S S S  Year 1  S S S S RA funding shown above assumed to Year 1 S S S S Year 1 S S S S S S S S S S S S S S S S S S S	\$00 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 26	28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ 28	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3  2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 3,679 \$ 679 \$ 679 \$ 470 \$ 470	Year 4  28,504 \$ 28,504 \$ 28,504 \$ 28,504 \$ \$ 4 \$ 2,647 \$ \$ 2,647 \$ \$ 2,647 \$ \$ 6,79 \$ \$ \$ 6,79 \$ \$ 6,	Year S 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,647 28,647 28,647 49,647 5,678 678 Year S Year S 3,822 Year S 4,822 Y	USD (Nominal) Cost Unit:    per participant	This represents the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the save capitured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 LISC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 LISC 48); assume labor requirements will be satisfied so as to qualify for 30% as opposed to 6% do not assume that protect resided in an energy community, which would interest will be satisfied as to a constructed or a participant in this participant in this participant in this participant is a calculated value, where utility incentives are substanted from the total sufficion project costs. Duced Participants after this participant is the participant of the participant in this participant is the participant of the participant in the Participant case starts for the NGA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILO	Size Size Size Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size C  Calculations & Other Explanation.  Escalation rat	Year 1  S S S S Year 1  S S S S  Year 1  S S S S RA funding shown above assumed to Year 1 S S S S Year 1 S S S S S S S S S S S S S S S S S S S	\$00 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 26	28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ 28	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3  2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 3,679 \$ 679 \$ 679 \$ 470 \$ 470	Year 4  28,504 \$ 28,504 \$ 28,504 \$ 28,504 \$ \$ 28,504 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year S 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,647 28,647 28,647 49,647 5,678 678 Year S Year S 3,822 Year S 4,822 Y	USD (Nominal) Cost Unit:    per participant	This represents the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the save capitured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 LISC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 LISC 48); assume labor requirements will be satisfied so as to qualify for 30% as opposed to 6% do not assume that protect resided in an energy community, which would interest will be satisfied as to a constructed or a participant in this participant in this participant in this participant is a calculated value, where utility incentives are substanted from the total sufficion project costs. Descri Participant Plot costs will be used to the Participant case starts for the NGA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILO	Size Size Size Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size C  Calculations & Other Explanation.  Escalation rat	Year 1  S S S S Year 1  S S S S  Year 1  S S S S RA funding shown above assumed to Year 1 S S S S Year 1 S S S S S S S S S S S S S S S S S S S	\$00 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 26	28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ 28	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3  2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 3,679 \$ 679 \$ 679 \$ 470 \$ 470	Year 4  28,504 \$ 28,504 \$ 28,504 \$ 28,504 \$ \$ 28,504 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year S 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,647 28,647 28,647 49,647 5,678 678 Year S Year S 3,822 Year S 4,822 Y	USD (Nominal) Cost Unit:    per participant	This represents the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the save capitured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 LISC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 LISC 48); assume labor requirements will be satisfied so as to qualify for 30% as opposed to 6% do not assume that protect resided in an energy community, which would interest will be satisfied as to a constructed or a participant in this participant in this participant in this participant is a calculated value, where utility incentives are substanted from the total sufficion project costs. Descri Participant Plot costs will be used to the Participant case starts for the NGA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILO	Size Size Size Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size C  Calculations & Other Explanation.  Escalation rat	Year 1  S S S Year 1  S S S IRA funding shown above assumed to Year 1  S S S S IRA funding shown above assumed to Year 1  S S S S S S S S S S S S S S S S S S	\$00 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 26	28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$  Year 2  2.647   \$ 2.647   \$ 2.647   \$ 3.679   \$ 679   \$ 679   \$ 679   \$ 779	Year 3  28.504 \$ 28.504 \$ 28.504 \$ Year 3  2.647 \$ 2.647 \$ 2.647 \$ 3 articipants' direct costs Year 3  679 \$ 679 \$ 790 \$ Year 3	Year 4  28.504 \$ 28.504 \$ 28.504 \$ 78.5	Year S 28,504 28,504 28,504 28,506 Year S 2,647 2,647 2,647  Year S 678 678 678 Year S 3,822 Year S 789 1898 1898 1898 1898 1898 1898 1898	USD (Nominal) Cost Unit:    per participant	This represents the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the total expirent and installation costs for technologies implemented as part of this pilot (specifically non-stility capital registers the save capitured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 LISC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 LISC 48); assume labor requirements will be satisfied so as to qualify for 30% as opposed to 6% do not assume that protect resided in an energy community, which would interest will be satisfied as to a constructed or a participant in this participant in this participant in this participant is a calculated value, where utility incentives are substanted from the total sufficion project costs. Descri Participant Plot costs will be used to the Participant case starts for the NGA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILO	Size Size Size Size A Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rat  IRA Discount on Capital Costs	Year 1  S S S S Year 1  S S S S  Year 1  S S S S RA funding shown above assumed to Year 1 S S S S Year 1 S S S S S S S S S S S S S S S S S S S	\$00 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 26	28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ \$ 28.504   \$ 28	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3  2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 3,679 \$ 679 \$ 679 \$ 470 \$ 470	Year 4  28,504 \$ 28,504 \$ 28,504 \$ 28,504 \$ \$ 28,504 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year S 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,504 28,647 28,647 28,647 49,647 5,678 678 Year S Year S 3,822 Year S 4,822 Y	USD (Nominal) Cost Unit:  4 per participant  5 per participant  9 per participant  USD (Nominal) Cost Unit:  7 per participant  USD (Nominal) Cost Unit:  9 per participant  USD (Nominal) Cost Unit:  9 per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecilically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor viculate utility program admin costs.  If there are expectations for external funding sources (e.g. ISA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria is this case we are assuming project would qualify for 30% investment tax credit pursuant to 26 USC 48E as an energy storage facility (which includes thermal energy storage property as defined in 26 USC 48), assume labor requirements will be satisfied so as to qualify for 30% as opposed to 6% do not assume that project is installed in an energy community, which would increase the purpose of the project costs. Direct Paticipant Biol costs will be used in the Paticipant Cost tests for the NGIA evaluation criteria. Note 1 some pilots taking a Direct costs. Direct Paticipant Patic costs will be used in the Paticipant Cost tests for the NGIA evaluation criteria. Note 1 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use
PARTICIPANT PILO	Size  Size  Size  Size  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size C  Calculations & Other Explanation:  Escalation rat  IRA Discount on Capital Cost  Participant Non-Energy Costs, Size A	Year 1  S S S Year 1  S S S IRA funding shown above assumed to Year 1  S S S S IRA funding shown above assumed to Year 1  S S S S S S S S S S S S S S S S S S	\$00 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 26	28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$  Year 2  2.647   \$ 2.647   \$ 2.647   \$ 3.679   \$ 679   \$ 679   \$ 679   \$ 779	Year 3  28.504 \$ 28.504 \$ 28.504 \$ Year 3  2.647 \$ 2.647 \$ 2.647 \$ 3 articipants' direct costs Year 3  679 \$ 679 \$ 790 \$ Year 3	Year 4  28.504 \$ 28.504 \$ 28.504 \$ 78.5	Year S 28,504 28,504 28,504 28,506 Year S 2,647 2,647 2,647  Year S 678 678 678 Year S 3,822 Year S 789 1898 1898 1898 1898 1898 1898 1898	USD (Nominal) Cost Unit:    per participant	This represents the total equipment and installation costs for technologies implemented as part of this plot (specifically non-utility capital rejects that were captured apparately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGAI evaluation criteria in this case we are assuming project would qualify for 30% investment tax credit pursuant to 25 IGC 485 as an energy storage facility (which includes themal energy storage project yea defined in 26 IGC 485, assume labor requirements will be a set outsided on a to quarter for 20% as a opposite to 10% don't assume that project is installed in 26 IGC 485, assume labor requirements will be a set of the upfront costs for 20% as a opposite plant who provides the provides of 10% don't assume that project is installed unit an energy committee, which would increase that project in the upfront costs in participant in this plant. This installation project costs to participant who participate in this plant. This installation project costs is participant plant of 10% as well as the plant costs of the NGAI evaluation criteris. Note 15 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use
PARTICIPANT PILO	Size Size Size Size A Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rat  IRA Discount on Capital Costs	Year 1  S S S Year 1  S S S IRA funding shown above assumed to Year 1  S S S S IRA funding shown above assumed to Year 1  S S S S S S S S S S S S S S S S S S	\$00 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 26	28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$  Year 2  2.647   \$ 2.647   \$ 2.647   \$ 3.679   \$ 679   \$ 679   \$ 679   \$ 779	Year 3  28.504 \$ 28.504 \$ 28.504 \$ Year 3  2.647 \$ 2.647 \$ 2.647 \$ 3 articipants' direct costs Year 3  679 \$ 679 \$ 790 \$ Year 3	Year 4  28.504 \$ 28.504 \$ 28.504 \$ 78.5	Year S 28,504 28,504 28,504 28,506 Year S 2,647 2,647 2,647  Year S 678 678 678 Year S 3,822 Year S 789 1898 1898 1898 1898 1898 1898 1898	USD (Nominal) Cost Unit:  4 per participant  5 per participant  9 per participant  USD (Nominal) Cost Unit:  7 per participant  USD (Nominal) Cost Unit:  9 per participant  USD (Nominal) Cost Unit:  9 per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecifically non-utility capital) projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NIGAl evaluation criteria is this case we are assuming project would qualify for 30% investment tax credit pursuant to 36 USC 488; as an energy storage facility (which includes thermal energy storage property as defined in 26 USC 48); assume labor requirements will be satified so as to qualify for 30% as opposed to 6% do not assume that project is installed in an energy community, which would increase  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant Cost tests for the NIGAl evaluation criteria. Note 1 come pilots taking a Direct instalf agreement may see the utility covering all costs, with no upfront frauncial contribution from the participant.  For an escalation rate, we use
PARTICIPANT PILO	Size  Size  Size  Size  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size C  Calculations & Other Explanation:  Escalation rat  IRA Discount on Capital Cost  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size A	Year 1  S S S Year 1  S S S IRA funding shown above assumed to Year 1  S S S S IRA funding shown above assumed to Year 1  S S S S S S S S S S S S S S S S S S	\$00 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 26	28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$ 28.504   \$  Year 2  2.647   \$ 2.647   \$ 2.647   \$ 3.627   \$ 3.79   \$ 3.79   \$  Year 2  Year 2  Year 2  Year 2  Year 2  Year 3  Year 2  Year 3  Year 2  Year 3  Year 3  Year 3	Year 3  28.504 \$ 28.504 \$ 28.504 \$ Year 3  2.647 \$ 2.647 \$ 2.647 \$ 3 articipants' direct costs Year 3  679 \$ 679 \$ 790 \$ Year 3	Year 4  28.504 \$ 28.504 \$ 28.504 \$ 78.5	Year S 28,504 28,504 28,504 28,506 Year S 2,647 2,647 2,647  Year S 678 678 678 Year S 3,822 Year S 789 1898 1898 1898 1898 1898 1898 1898	USD (Nominal) Cost Unit:  4 per participant 4 per participant 4 per participant 4 per participant USD (Nominal) Cost Unit: 7 per participant 7 per participant 9 per participant USD (Nominal) Cost Unit: 9 per participant per particip	This represents the total equipment and installation costs for technologies implemented as part of this plot (specifically non-utility capital rejects that were captured apparately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGAI evaluation criteria in this case we are assuming project would qualify for 30% investment tax credit pursuant to 25 IGC 485 as an energy storage facility (which includes themal energy storage project yea defined in 26 IGC 485, assume labor requirements will be a set outsided on a to quarter for 20% as a opposite to 10% don't assume that project is installed in 26 IGC 485, assume labor requirements will be a set of the upfront costs for 20% as a opposite plant who provides the provides of 10% don't assume that project is installed unit an energy committee, which would increase that project in the upfront costs in participant in this plant. This installation project costs to participant who participate in this plant. This installation project costs is participant plant of 10% as well as the plant costs of the NGAI evaluation criteris. Note 15 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use
PARTICIPANT PILO	Size  Size  Size  Size  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size B  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size B  Direct Participant Pilot Costs, Size C  Calculations & Other Explanation:  Escalation rat  IBA Discount on Capital Cost  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Calculations & Other Explanation.	Year 1  S S S S FIRA funding shown above assumed to S S S S S Year 1 S S Year 1 S S Year 1 S S Year 1	\$00 Tons 1000 To	28.504   \$ 28.504	Year 3  28.504 \$ 28.504 \$ 28.504 \$ 74.504 \$ 74.504 \$ 2.647 \$ 2.647 \$ 2.647 \$ 2.647 \$ 3.679 \$ 679 \$ 679 \$ 679 \$ 798	Year 4	Year S  28,504 28,504 28,504 Year S  2,641 2,641 2,641 Year S  3,822 Year S  Year S  Year S  Year S  Year S	USD (Nominal) Cost Unit:    per participant	This represents the total equipment and installation costs for technologies implemented as part of this plot (specifically non-utility capital rejects that were captured apparately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGAI evaluation criteria in this case we are assuming project would qualify for 30% investment tax credit pursuant to 25 IGC 485 as an energy storage facility (which includes themal energy storage project yea defined in 26 IGC 485, assume labor requirements will be a set outsided on a to quarter for 20% as a opposite to 10% don't assume that project is installed in 26 IGC 485, assume labor requirements will be a set of the upfront costs for 20% as a opposite plant who provides the provides of 10% don't assume that project is installed unit an energy committee, which would increase that project in the upfront costs in participant in this plant. This installation project costs to participant who participate in this plant. This installation project costs is participant plant of 10% as well as the plant costs of the NGAI evaluation criteris. Note 15 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use
PARTICIPANT PILO	Size  Size  Size  Size  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A  Third Party Funding, Size B  Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size C  Calculations & Other Explanation:  Escalation rat  IRA Discount on Capital Cost  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size A	Year 1  S S S S FIRA funding shown above assumed to S S S S S Year 1 S S Year 1 S S Year 1 S S Year 1	\$00 Tons 1000 Tons 1000 Tons 1000 Tons 1000 Tons 28,504 \$ 28,504 \$ 28,504 \$ 26,47 \$ 26	28.504   \$ 28.504   \$	Year 3  28,504 \$ 28,504 \$ 28,504 \$  Year 3  2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$ 2,647 \$  Year 3  479 \$  479 \$  479 \$  489 \$  489 \$  499 \$  Year 3	Year 4	Year S  28,504 28,504 28,504 Year S  2,641 2,641 2,641 Year S  3,822 Year S  Year S  Year S  Year S  Year S	USD (Nominal) Cost Unit:  4 per participant 4 per participant 4 per participant 4 per participant USD (Nominal) Cost Unit: 7 per participant 7 per participant 9 per participant USD (Nominal) Cost Unit: 9 per participant per particip	This represents the total equipment and installation costs for technologies implemented as part of this plot (specifically non-utility capital rejects that were captured apparately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGAI evaluation criteria in this case we are assuming project would qualify for 30% investment tax credit pursuant to 25 IGC 485 as an energy storage facility (which includes themal energy storage project yea defined in 26 IGC 485, assume labor requirements will be a set outsided on a to quarter for 20% as a opposite to 10% don't assume that project is installed in 26 IGC 485, assume labor requirements will be a set of the upfront costs for 20% as a opposite plant who provides the provides of 10% don't assume that project is installed unit an energy committee, which would increase that project in the upfront costs in participant in this plant. This installation project costs to participant who participate in this plant. This installation project costs is participant plant of 10% as well as the plant costs of the NGAI evaluation criteris. Note 15 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use
PARTICIPANT PILO COSTS	Size Size Size Size Size Size Size Size	Year 1  S S S S FIRA funding shown above assumed to S S S S S Year 1 S S Year 1 S S Year 1 S S Year 1	\$00 Tons 1000 To	28.504   \$ 28.504	Year 3  28.504 \$ 28.504 \$ 28.504 \$ 74.504 \$ 74.504 \$ 2.647 \$ 2.647 \$ 2.647 \$ 2.647 \$ 3.679 \$ 679 \$ 679 \$ 679 \$ 798	Year 4	Year S  28,504 28,504 28,504 28,504 Year S  2,641 2,641 2,641 2,647 4	USD (Nominal) Cost Unit:    per participant	This represents the total equipment and installation costs for technologies implemented as past of this plot (specifically non-utility capital rejects that were captured apparently above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGAI evaluation criteria in this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 USC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 USC 48); assume later requirements will be satisfied to at to qualify for 30% as apposing the meaning project would qualify for 30% investment tax credit pursuant to 40 USC 480; as an energy storage facility (which includes thermal energy storage property as defined in 26 USC 48); assume later requirements will be satisfied to at to qualify for 30% as apposing the satisfied to at the upfront costs to participants who participate in this plot. This installed in an energy community, which was defined from the total sufficient project costs. Direct Perticipant Plot costs will be used in the Participant Cests for the NGAI evaluation criteria. Note 1 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use
PARTICIPANT PILO	Size Size Size Size Size Size Size Size	Year 1  S S S S FIRA funding shown above assumed to S S S S S Year 1 S S Year 1 S S Year 1 S S Year 1	\$00 Tons 1000 To	28.504   \$ 28.504	Year 3  28.504 \$ 28.504 \$ 28.504 \$ 74.504 \$ 74.504 \$ 2.647 \$ 2.647 \$ 2.647 \$ 2.647 \$ 3.679 \$ 679 \$ 679 \$ 679 \$ 798	Year 4	Year S  28,504 28,504 28,504 28,504 Year S  2,641 2,641 2,641 2,647 4	USD (Nominal) Cost Unit:    per participant	This represents the total equipment and installation costs for technologies implemented as past of this plot (specifically non-utility capital rejects that were captured apparently above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGAI evaluation criteria in this case we are assuming project would qualify for 30% investment tax credit pursuant to 35 USC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 USC 48); assume later requirements will be satisfied to at to qualify for 30% as apposing the meaning project would qualify for 30% investment tax credit pursuant to 40 USC 480; as an energy storage facility (which includes thermal energy storage property as defined in 26 USC 48); assume later requirements will be satisfied to at to qualify for 30% as apposing the satisfied to at the upfront costs to participants who participate in this plot. This installed in an energy community, which was defined from the total sufficient project costs. Direct Perticipant Plot costs will be used in the Participant Cests for the NGAI evaluation criteria. Note 1 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use

PARTICIPANT NON- ENERGY SAVINGS	Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C Calculations & Other Explanation:	Year 1         Year 2         Year 3         Year 4         Year 5         USD (Nominal) Cost Unit:           \$         -         \$ <td< th=""></td<>
PILOT LIFE	Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B Average Lifetime for Savings/Pilot Tech, Size C Calculations & Other Explanation:	40 years 40 years 40 years 40 years
	Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C Calculations & Other Explanation:	419 Dth/Participant participants are tons, so this is annual gas savings per ton 419 Dth/Participant represents annual savings after all equipment is installed (year 4)  419 Dth/Participant
NATURAL GAS ENERGY SAVINGS: AVG. Dth/ PARTICIPANT SAVED	Geothermal Heating capacity facto Btul/rs, Size, Btul/rs, Size Btul/rs, Size Annual Dth, size Annual Dth, size Annual Dth, size Replaced Boiler / Furnace Efficienc	te A 2,833,529 Heating capacity factors for these sites were approximately 33% (Rochester), 50% (Ithaca), and 66% (Nowich) the B 7,058,824 Minnesota TRM 30, Residential Space Heating Hours per year, for Zone 3 (Southern MM / Twin Cities): 1932 Equivalent Full Load Heating Hours the C 14,117,647 Sign Journal Plant For 870 hours lyear = 22% capacity factor for just space heating, not accounting for water heating (and commercial buildings served might have higher p te A 8,157 40,78 But there is also the impact of loads not always being co-incident, letting the system provide heat to more buildings given that heating needs may be staggered/c the B 20,392 40,78 Dth per ton For now we are basing geothermal capacity factor of the lowest value observed in New York analyses above, 33% (the total savings still seem reliatively high comp to C 40,784 40,78 Ultimately, the more detailed feasibility study and planning for head to assess this value and the gas savings more precisely
	Additional savings from converted cooking/drying appliance:	Es: 1.11 Dth/ton (participant) For Midwest region, RECS survey data shows that gas consumption for cooking and drying is equal to 2.72% of gas consumption for space heating and water heating (expected to be displaced by geothermal)
	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C	O.00 kWh/Participant Units are kWh: could technically be other non-NG. Avg. Non-Gas Fuel Units/Part. Saved will be used in the Participant Cost tests for the NGIA evaluation criteria.  O.00 kWh/Participant  O.00 kWh/Participant
AVG. NON-GAS FUEL UNITS/ PART.	Avg. Additional Non-Gas Fuel Units/Part.Used, Size A Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C Calculations & Other Explanation;	L407   WMh/Participant   Avg. Additional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.   1,407   WMh/Participant   L407   WMh/Participant   L407   L4
TOTAL ANNUAL Dth SAVED	Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C Calculations & Other Explanation:	Year 1         Year 2         Year 3         Year 4         Year 5           -         -         4,189         4,189         -         Dth         Natural gas energy sovings that result from multiplying savings per participant times the total number of new participants in a given year           -         -         8,379         16,757         Dth
GRID MIX SCENARIO	Grid Mix Scenario  Calculations & Other Explanation:	NREL  Select one of the listed girl mix scenarios taking into account that:  -Dilities shall use electric-utility-specific generation mix information for the renewable natural gas facility when it is reasonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from National Renewable.
	This section does not apply to all pilot types. The GHG changes from decreas	ased natural gas and/or electricity consumption will be calculated based on values above. However, for pilots where NGIA requires lifecycle GHG savings (e.g. RNG, hydrogen, carbon capture) this section accounts for the lifecycle change in GHG emissions (per unit of participation).
	Lifecycle GHG Intensity, Size A Low Expected High	Year 1 Year 2 Year 3 Year 4 Year 5  Kg CO24/participant  Littles shall file a high, four, and expected greenhouse gas intensity for innovative resources included in a proposed Metural Gas Innovation (MGIA) plan, where explicable. High and lew scenarios shall incorporate at least two and high assumptions for electricity use and orthord for the security of the security of the security of the security of the electricity use and orthord for the security of the expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas returnation of plot programs and WGAI plans.
LIFECYCLE GHG	Lifecycle GHG Intensity, Size B Low Expected High	Year 1         Year 2         Year 3         Year 4         Year 5           0.00         0.00         0.00         0.00         kg CO2e/participant           kg CO2e/participant         kg CO2e/participant
INTENSITY BY PROJECT SIZE	Lifecycle GHG Intensity, Size C Low Expected High	Year 1         Year 2         Year 3         Year 4         Year 5           0.00         0.00         0.00         0.00         kg CO2e/participant           kg CO2e/participant         kg CO2e/participant
	Calculations & Other Explanation:	

HER PILOT-SPEC	FIC PARAMETERS (formerly 'General Parameters' in CIP Calculator):					
ERTIEGT GIEGI	Peak Reduction Factor		10/			d be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the Utility Cost and Non Participant Cost tests for the
AK REDUCTION			NGIA evaluation criteria.	nnual effect of the project on system peak. It is estimated to be 1% for energy of	efficiency pilots. The method for other innovative resources should	d be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the Utility Cost and Non Participant Cost tests for the
FACTOR	Calculations & Other Explanation:					
		Values now linked directly back to plann Year 1	ining assumptions tab (possible given the co Year 2	mbination of formerly separate Exhibits P and N into a single file)  Year 3  Year 4	Year 5 USD (Nominal) Cost Unit:	
RIABLE O&M	Variable O&M Cost, Applies to all project sizes	\$	0.05 \$	0.04 \$ 0.04 \$ 0.04 \$	0.04 per Dth	The CIP methodology is used for energy efficiency. However, the value for other innovative resources should be considered in the context of specific utility proposals. For example, resources like power-to-hydrogen and BNG may not decrease QSM costs as they also need to be
RIABLE O&M	Calculations & Other Explanation:	Year 1	Year 2	Year 3 Year 4	Year 5	specific utility proposals. For example, resources like power-to-hydrogen and RNG may not decrease O&M costs as they also need to be transported to customers on the distribution system. Variable O&M will be used in the Utility Cost and Non Participant Cost tests for the NGIA
		n/a	-5	.250% -5.250% -5.250%	-5.250% (for each pilot analysis year)	Annual Escalation Rate calculated using the average percent change in the price of natural gas between 2023 through
			USD (Nominal) Cost	Unit:		
	Non-Gas (i.e., Electric) Fuel Cost	\$	44.14 per MWh	The CIP methodology is used for all resources other than strategic ele	ectrification. The method for strategic electrification should be con	nsidered in the context of specific utility pilot proposals.
	Calculations & Other Explanation:		,	equal to the average of daily real-time final market locational marginal	al prices (LMP) at the Minnesota Hub from January 1, 2022 to Dece	ember 31, 2022 using data from Midwest Independent System Operator (MISO)
	Calculations & Other Explanation:					
ON ONG FUEL						
N-GAS FUEL COST						
	Non-Gas Fuel Loss Factor		8.22%	The CIP methodology is used for all resources other than strategic el-	ectrification. The method for strategic electrification should be co	nsidered in the context of specific utility pilot proposals. In the most recent CIP, Staff used the weighted average of the most recent loss factors report
	Calculations & Other Explanation:		<del></del>	by Minnesota Power, Xcel Energy, and Otter Tail Power's reported 20	121 transmission and distribution loss factors and weighting by the	utilikies' 2017-2019 average retail sales
	Calculations & Other Explanation.					
ON-GAS FUEL						
ON-GAS FUEL OSS FACTOR						
ON-GAS FUEL OSS FACTOR						
ION-GAS FUEL LOSS FACTOR						
ON-GAS FUEL OSS FACTOR						
ON-GAS FUEL OSS FACTOR						
ON-GAS FUEL DSS FACTOR						
OSS FACTOR	/E CRITERIA:					
OSS FACTOR	ve Criteria:					
OSS FACTOR			USD Cost Unit:	Generally no chance from CP methodology. The factor is calculated	using the final environmental cost values approved by Minnesota f	Public Utilities Commission (Commission). The factors are recorted in 2021 dollars in Table 2 below, which were calculated by inflating the Commission.
OSS FACTOR	Other Non-GHG Pollutants, Size A	\$	0.37 per Dth	approved dollar per ton environmental cost values using escalation re	ate to adjust by observed inflation between 2014 and 2021. Stakeh	olders expressed a preference for allowing utilities to select different externality values for pilots targeting specific geographies or populations. For
OSS FACTOR	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B	\$ \$	0.37 per Dth  0.37 per Dth	approved dollar per ton environmental cost values using escalation re example, an energy efficiency project that targets an urban area migi NGIA plans if they can provide justification for the change. Instead of	ate to adjust by observed inflation between 2014 and 2021. Stakeh	Public Utilities Commission (Commission). The factors are reported in 2021 dollars in Table 2 below, which were calculated by inflating the Commission in olders expressed a preference for allowing utilities to select different externality values for piloss targeting specific geographies or populations. For imilarly, a project targeting a low-income population implie use a high value rather than the median Utilities can make deviations such as these in their diffic pollutants, as shown in Table 1 of the Commission's anancy 2.00 Ender in Colora for 10290FUT-1643, difficien may set value most application.
OSS FACTOR	Other Non-GHG Pollutants, Size A	\$ \$ \$	0.37 per Dth	approved dollar per ton environmental cost values using escalation re	ate to adjust by observed inflation between 2014 and 2021. Stakeh	olders expressed a preference for allowing utilities to select different externality values for pilots targeting specific geographies or populations. For
OSS FACTOR	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B	\$ \$ \$	0.37 per Dth  0.37 per Dth	approved dollar per ton environmental cost values using escalation re example, an energy efficiency project that targets an urban area migi NGIA plans if they can provide justification for the change. Instead of	ate to adjust by observed inflation between 2014 and 2021. Stakeh	olders expressed a preference for allowing utilities to select different externality values for pilots targeting specific geographies or populations. For
OSS FACTOR	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C	\$ \$ \$ \$	0.37 per Dth  0.37 per Dth	approved dollar per ton environmental cost values using escalation re example, an energy efficiency project that targets an urban area migi NGIA plans if they can provide justification for the change. Instead of	ate to adjust by observed inflation between 2014 and 2021. Stakeh	olders expressed a preference for allowing utilities to select different externality values for pilots targeting specific geographies or populations. For
OSS FACTOR	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C	\$ \$ \$	0.37 per Dth  0.37 per Dth	approved dollar per ton environmental cost values using escalation re example, an energy efficiency project that targets an urban area migi NGIA plans if they can provide justification for the change. Instead of	ate to adjust by observed inflation between 2014 and 2021. Stakeh	olders expressed a preference for allowing utilities to select different externality values for pilots targeting specific geographies or populations. For
SS FACTOR	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C	\$ \$ \$	0.37 per Dth  0.37 per Dth	approved dollar per ton environmental cost values using escalation re example, an energy efficiency project that targets an urban area migi NGIA plans if they can provide justification for the change. Instead of	ate to adjust by observed inflation between 2014 and 2021. Stakeh	olders expressed a preference for allowing utilities to select different externality values for pilots targeting specific geographies or populations. For
ER QUANTITATIV	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C	\$ \$ \$ \$ \$	0.37 per Dth  0.37 per Dth	approved dollar per to newbomental cost values using escalation on example, an energy efficiency regives that stagets an arban area migh NGIA plans if they can provide justification for the change. Instead of for the pilot or measure.	ate to adjust by observed inflation between 2016 and 2021. Stakeh the use the urban value rather than the metropolitan friege values for all non- requiring the use of median metropolitan friege values for all non-	olders expressed a preference for allowing utilities to select different externally values for plots targeting specific geographies or populations. For immunity, a project steeping a low-income population night use a single high value rather than the median. Utilities can make deviations but as these in their GRIG pollutants, as shown in Table I of the Commission's January 3, 2018 Order in Docket No. E1999/CI-14-643, utilities may use the value most applicable and the specific pollutants, as shown in Table I of the Commission's January 3, 2018 Order in Docket No. E1999/CI-14-643, utilities may use the value most applicable.
ER QUANTITATIV	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations & Other Explanation:	\$ \$ \$	0.37 per Dth 0.37 per Dth 0.37 per Dth	approved dollar per to nevironmental cast values using escalation or example, an energy efficiency register that targets an urban area mignificant that per an area mignificant for the change. Instead of for the pilot or measure.  The factor is calculated using the median range of the first factor is calculated using the factor is calc	ate to adjust by observed inflation between 2014 and 2021. Stakeh the use the urban value rather than the metropolitan finge values for all non-in- requiring the use of median metropolitan fringe values for all non-in- tered that the use of median metropolitan fringe values for all non-in- tered that the use of median metropolitan fringe environmental cost values appro-	ooklers expressed a preference for allowing utilities to select different externally values for plots targeting expecific geographies or populations. For immunity, a project setting a low-income population might use a flash value startler than the median. Utilities can make deviations but as these in their GHG pollutants, as shown in Table I of the Commission's January 3, 2018 Order in Docket No. E1999/CI-14-643, utilities may use the value most applicate that the properties of the commission
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ER QUANTITATIV	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations & Other Explanation:		0.37 per Dth	approved dollar per to new roomental cost values using escalation or example, an energy efficiency project that targets an urban area migh NGIA plans if they can provide justification for the change. Instead of for the pilot or measure.  The factor is calculated using the median range of the fir particulate matter (PMZ.5), carbon monoxide (CO), nitro. Fifth Edition, Compilation of Air Pollutant Emission Facto	ate to adjust by observed inflation between 2016 and 2021. Stakes the use the urban value traher than the metropolitan finge values for all non- requiring the use of median metropolitan fringe values for all non- tional final properties of the state o	ooklers expressed a preference for allowing utilities to select different externally values for plots targeting expecific geographies or populations. For immunity, a project setting a low-income population might use a flash value startler than the median. Utilities can make deviations but as these in their GHG pollutants, as shown in Table I of the Commission's January 3, 2018 Order in Docket No. E1999/CI-14-643, utilities may use the value most applicate that the properties of the commission
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ER QUANTITATIV	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations & Other Explanation:  2024 Gas environmental damage from all criteria pollutants combined		0.37 per Dth	approved dollar per to nevironmental cost values using escalation or example, a mergy efficiency periget that tragets an uban area migh NGIA plans if they can provide justification for the change. Instead of for the pilot or measure.  The factor is calculated using the median range of the fir particulate matter (PMZS), carbon monoxide (CO), nitro, Fifth Edition, Compilation of Air Pollutant Emission Facto int to	ate to adjust by observed inflation between 2016 and 2021. Stakes in use the urban value rather than the entropolitan frings as the experience of the state of th	ooklers expressed a preference for allowing utilities to select different externally values for plots targeting expecific geographies or populations. For immunity, a project setting a low-income population might use a flash value startler than the median. Utilities can make deviations but as these in their GHG pollutants, as shown in Table I of the Commission's January 3, 2018 Order in Docket No. E1999/CI-14-643, utilities may use the value most applicate that the properties of the commission
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ER QUANTITATIV	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations & Other Explanation:  2024 Gas environmental damage from all criteria pollutants combined 2022 Gas environmental damage from all criteria pollutants combined Escalation rate from legislation		0.37 per Dth 0.37 per Dth 0.37 per Dth 0.37 per Dth 0.37 0.34 per Dth 2022 USD adjustme 0.0779 2024 USD	approved dollar per to nevironmental cost values using escalation or example, a mergy efficiency periget that tragets an uban area migh NGIA plans if they can provide justification for the change. Instead of for the pilot or measure.  The factor is calculated using the median range of the fir particulate matter (PMZS), carbon monoxide (CO), nitro, Fifth Edition, Compilation of Air Pollutant Emission Facto int to	ate to adjust by observed inflation between 2016 and 2021. Stakes in use the urban value rather than the entropolitan frings as the experience of the state of th	ooklers expressed a preference for allowing utilities to select different externally values for plots targeting expecific geographies or population in five use high value rather than the median Utilities can make deviations but as these in their GRIG pollutants, a spical term of the median Utilities can make deviations but as these in their GRIG pollutants, as shown in Table I of the Commission's January 3, 2018 Order in Docket No. E1999/CP-14-643, utilities may use the value most applicable and the spical pollutants, as shown in Table I of the Commission's January 3, 2018 Order in Docket No. E1999/CP-14-643, utilities may use the value most applicable most provided by the Minnesota Public Utilities Commission (Commission)27 for carbon dioxide (CO2), sulfur dioxide (SO2), fine natural gas emission factor (or factors) for each emission provided by the Environmental Protection Agency Source: AP-42,
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ER QUANTITATIV	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations & Other Explanation:  2024 Gas environmental damage from all criteria pollutants combined 2022 Gas environmental damage from all criteria pollutants combined Escalation rate from legislation		0.37 per Dth 0.37 per Dth 0.37 per Dth 0.37 per Dth 0.37 0.34 per Dth 2022 USD adjustme 0.0779 2024 USD	approved dollar per to nevironmental cost values using escalation or example, a mergy efficiency periget that tragets an uban area migh NGIA plans if they can provide justification for the change. Instead of for the pilot or measure.  The factor is calculated using the median range of the fir particulate matter (PMZS), carbon monoxide (CO), nitro, Fifth Edition, Compilation of Air Pollutant Emission Facto int to	ate to adjust by observed inflation between 2016 and 2021. Stakes in use the urban value rather than the entropolitan frings as the experience of the state of th	ooklers expressed a preference for allowing utilities to select different externally values for plots targeting expecific geographies or population in five use high value rather than the median Utilities can make deviations but as these in their GRIG pollutants, a spical term of the median Utilities can make deviations but as these in their GRIG pollutants, as shown in Table I of the Commission's January 3, 2018 Order in Docket No. E1999/CP-14-643, utilities may use the value most applicable and the spical pollutants, as shown in Table I of the Commission's January 3, 2018 Order in Docket No. E1999/CP-14-643, utilities may use the value most applicable most provided by the Minnesota Public Utilities Commission (Commission)27 for carbon dioxide (CO2), sulfur dioxide (SO2), fine natural gas emission factor (or factors) for each emission provided by the Environmental Protection Agency Source: AP-42,
ON-GAS FUEL OSS FACTOR HER QUANTITATIV	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations & Other Explanation:  2024 Gas environmental damage from all criteria pollutants combined 2022 Gas environmental damage from all criteria pollutants combined Escalation rate from legislation	\$	0.37 per Dth 2022 USD adjustme 0.0779 2024 USD 3.82%	approved dollar per to newbomental cost values using escalation or example, an energy efficiency project that targets an uban area migh NGIA plans if they can provide justification for the change. Instead of for the pilot or measure.  The factor is calculated using the median range of the first particulate matter (PM2.5), carbon monoxide (CO), nitro, Fifth Edition, Compilation of Air Pollutant Emission Factor to Annual escalation rate calculated as the average of the 17 https://www.bls.gov/charts/consumer-price-index/cons	ate to adjust by observed inflation between 2016 and 2021. Stakes by the use the urban value rather than the metropolitan (ring washes requiring the use of median metropolitan fringe values for all non-large values for al	olders expressed a preference for allowing utilities to select different externally values for plots targeting expecific geographies or population. For immunity, a project largeting a low-income population night use a right youte prater than the median. Utilities can make deviations use a three in the GRIG pollutants, as shown in Table I of the Commission's January 3, 2018 Order in Docket No. E1999(CH-14-643, utilities may use the value most applicated and the properties of the Commission's January 3, 2018 Order in Docket No. E1999(CH-14-643, utilities may use the value most applicated by the Minnesorta Public Utilities Commission (Commission)27 for carbon dioxide (CO2), sulfur dioxide (SO2), fine natural gas emission factor (or factors) for each emission provided by the Environmental Protection Agency Source: AP-42, or price index available from the United States Bureau of Labor Statistics between 2018 and 2022.
ER QUANTITATIV	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations & Other Explanation:  2024 Gas environmental damage from all criteria pollutants combined 2022 Gas environmental damage from all criteria pollutants combined Escalation rate from legislation		0.37 per Dth 0.37 per Dth 0.37 per Dth 0.37 per Dth 0.37 0.34 per Dth 2022 USD adjustme 0.0779 2024 USD	approved dollar per to newbomental cost values using escalation or example, an energy efficiency project that targets an uban area migh NGIA plans if they can provide justification for the change. Instead of for the pilot or measure.  The factor is calculated using the median range of the first particulate matter (PM2.5), carbon monoxide (CO), nitro, Fifth Edition, Compilation of Air Pollutant Emission Factor to Annual escalation rate calculated as the average of the 17 https://www.bls.gov/charts/consumer-price-index/cons	ate to adjust by observed inflation between 2016 and 2021. Stakes in use the urban value rather than the entropolitan frings as the experience of the state of th	oved by the Minnesota Public Utilities Commission (Commission)27 for carbon dioxide (CO2), sulfur dioxide (SO2), fine natural gas emission factor (or factors) for each emission provided by the Environmental Protection Agency Source: AP-42, price index available from the United States Bureau of Labor Statistics between 2018 and 2022.  Remainder of project life.  8 Utilities should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs the little should consider both jobs created by proposed pilots and jobs th
ER QUANTITATIV	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations & Other Explanation.  2024 Gas environmental damage from all criteria pollutants combined 2022 Gas environmental damage from all criteria pollutants combined Escalation rate from legislation Annual escalation rate	\$	0.37 per Dth 2022 USD adjustme 0.0779 2024 USD 3.82%	approved dollar per to newbomental cost values using escalation or example, an energy efficiency project that targets an uban area migh NGIA plans if they can provide justification for the change. Instead of for the pilot or measure.  The factor is calculated using the median range of the first particulate matter (PM2.5), carbon monoxide (CO), nitro, Fifth Edition, Compilation of Air Pollutant Emission Factor to Annual escalation rate calculated as the average of the 17 https://www.bls.gov/charts/consumer-price-index/cons	ate to adjust by observed initiation between 2016 and 2021. Stakes his thus ethe urban value rather than the entropolitan frings as requiring the use of median metropolitan frings values for all non-large values for all n	olders expressed a preference for allowing utilities to select different externally values for plots targeting expecific geographies or populations. For immunity, a project stargeting a low-income population ingits use a fighty value rather than the median Utilities can make deviations as as a threa in their GHG pollutants, as shown in Table I of the Commission's January 3, 2018 Order in Docket No E1899/CH-4-643, utilities may use the value most applicated to the property of the Value of

	1								
	Net Indirect Job Creation. Size A	Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life  7	Utilities should consider both jobs created by proposed pilots and jobs that
	Net Indirect Job Creation, Size B Net Indirect Job Creation, Size C	1	2	2 4	5	20	3	16 50 # of jobs 41 88 # of jobs	may be eliminated by proposed pilots.
	Net indirect 300 Creation, Size C		3	5	0	20	<u> </u>	# 01 008	
NET JOB CREATION		Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life	
	Net Induced Job Creation, Size A Net Induced Job Creation, Size A	1	1	2	2		1	7 34 # of jobs 16 74 # of jobs	
	Net Induced Job Creation, Size A	2	5	5 5	9	2	2	44 142 # of jobs	
	Calculations & Other Explanation:								
	Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.								
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		
	Public Co-Benefits, Size A	\$ -	s -	\$ -	\$ -	5 -	per year		there is space for any qualitative comments in the Additional Qualitative
PUBLIC CO-	Public Co-Benefits, Size B Public Co-Benefits, Size C	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	per year per year	Considerations section below.	
BENEFITS						-	, , , , , , , , , , , , , , , , , , ,		
	Calculations & Other Explanation:								
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	_	
	Water Pollution, Size A Water Pollution, Size B	\$ - \$ -	\$ - \$ -	\$ -	\$ - \$	\$ -	per year per year	The legislation left the door open to quantify any costs an metric isn't quantifiable, there is space for any qualitative	d benefits on water pollution. This might be quantifiable for some of the projects. If this comments in the Additional Qualitative Considerations section below.
WATER POLLUTION	Water Pollution, Size C	\$ -	\$ -	\$ -	\$ -	\$ -	per year		
	Calculations & Other Explanation:								
	ATIVE CONSIDERATIONS:								
	ATIVE CONSIDERATIONS:								
NGIA Utility Perspective Notes:									
	It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and								
Definition:	CIP quantification methods.								
NGIA Participants'									
Perspective Notes: Definition:	It is expected that many of the elements of the participant perspective, with re-	spect to the direct effect of pilots, will be quantifiable	and will rely on the structu	ıral values. Add here anv i	information related to s	ome direct effects of p	ilots on participants that may not be easily	quantifiable. For example, increased comfort in a h	ome
	and health benefits from pilots that improve indoor air quality are two examples	s of benefits that may be difficult to quantify.							
<u>NGIA</u>									
Nonparticipating									
Customers' Perspective Notes:									
	As with the utility perspective, the direct effects of pilot programs on non- participating customers should be quantified in most cases and can be heavily informed by structural values.								
Definition:	informed by structural values.								
Effects on Other Energy Systems									
and Energy									
Security: Definition:									
	NGIA invites the Commission to consider how innovative resources fit into the empowers the Commission to consider a wide variety of "costs and benefits the	energy system with a broader perspective than effects	on the gas utility and its o	customers. Measures like	strategic electrification	specifically require ga		ative effects on the electric system. Further, the NO	BIA
	System will also support cooling reducing demand on electric system	actinal be expected direct a plan, one of whether a re-	duction of remaride on map.	orted resources and name	ond rock marketa.				
GHG Emissions Notes:									
Notes: Definition:	An innovation plan must include the total lifecycle GHG emissions that the utilit		enting the plan. This benefi	t should be generally qua	antifiable using the Com	mission-approved GHC	accounting framework and GHG externalit	ty values. Note that this row also calls for discussion	of
	any environmental justice effects of the pilot related to GHG emissions, these n	nay not be quantifiable.							

Other Pollution	
Notes:	
Definition:	
	include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.
Waste Reduction	
and Reuse Notes:	
	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes
	reduction of water use.
Policy Notes:	
	NGIA is intended to help the state achieve certain environmental policy goals
	including geologic gas throughput reduction and increased use of renewable
Definition:	resources
	Reduces fossil gas throughput, increases use of renewable energy
Net Job Creation	
Notes:	
	An innovation plan must include, as applicable, "projected local job impacts
	resulting from implementation of the plan." Utilities should consider both jobs
Definition:	created by proposed pilots and jobs that may be eliminated by proposed pilots.
Essessia	
<u>Economic</u>	
<u>Development</u>	
Notes: Definition:	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional
	economic benefits
	Will pay prevailing wages; will seek apprentices; will seek to hire from local community; will take advantage of higher IRA credits due to labor practices, networked geothermal projects represent clean energy opportunity for workers from traditional fossil fuel jobs; locally produced technologies will be considered
Public Co-Benefits	
Notes: Definition:	
	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.
Market	
<u>Development</u>	
Notes:	
Definition:	
	The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are realized
Direct Innovation	
Support Notes: Definition:	This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA, 40 are unlikely to produce significant benefits on their own but are
	Inis category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGA-8U are unlikely to produce significant benefits on their own but are intended to lead to future opportunities.
	intended to lead to future opportunities. Major opportunity for gas utility to learn about delivering energy in a new way
	major opportunity to igas utinty to team about derivering energy in a new way
Resource	
Scalability and Role	
in a Decarbonized	
System Notes:	
Definition:	
	While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or
	exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.

ZICF		Click here to go back to the list of all pilots		NGIA Pilot Profile	s Workbook	
*ICF	CNP15 - Decarbonizing Existing District Energy Systems					
	Pilot Project Code:	CNP15				
	Pilot Project Name:	Decarbonizing Existing District Energy Systems				
	Customer Class/ Sector:	C&I				
	Low-Income Community Benefit?	N				
	Target Area:	Urban				
	Primary Innovative Resource Category:	District Energy	Select primary Innovation Category. Others can be	listed here: renewable natura	al gas, biogas, power-to-hydrogen, carbon capture, strategic electrification, energy	
	Pilot Description:					
	CenterPoint Energy proposes a two-part pilot to help existing district energy:	systems that currently use geologic gas to identify	opportunities to reduce the lifecycle GHG impact	f their systems. First. CenterPoint Energy proposes to s	support customers who hire expert engineering firms or similar to complete	
	feasibility studies to identify decarbonization opportunities. Second, CenterPo	int Energy would support customers in implementin	g GHG reduction projects.			
DESCRIPTION						
	Overview of Program/ Implementation Approach:					
	CenterPoint energy would provide an incentive in support of feasibility/engine				at up to a cap of \$30,000. While incentive approaches/structures to encourage	
	customers to adopt the findings of these studies are still under consideration	CenterPoint is considering leveraging a similar appr	pach to CIP custom programs, with incentives dete	mined based on the minimum of several cost caps (in 0	CIP, this is 1 year payback, 50% of incremental costs, or \$5/Dth annual gas	
	savings). CenterPoint expects the \$/Dth cap to be the limiting factor for most rebates in CIP would not be eligible for these NGIA rebates.	projects considered under NGIA, and is considering	nigher incentive levels than the \$5/Dth for NGIA inc	entives. CenterPoint also plans to be a cap on the incen	ntive for any given project at a maxium of \$1.5 million. Projects that are eligible for	
	resides in our would not be engine for these real resides.					
	Other Comments / Information:					
	Note – for now this pilot has been based on high-level assumptions surroundi	ng a potential opportunity at a large district energy of	customer. This customer is already conducting and	engineering study of decarbonization options, and howe	over the final results were not ready before the NGIA plan filing.	
	Sizes B and C of this pilot will be based on the same savings assumptions, but	are an opportunity to set aside funding to support	additional district energy customers over the 5-year	period covered by the first NGIA plan		
	•			,		
KEY PILOT-SPECIFIC	CINPUTS:					
	Pilot Year	Year 1	Year 2 Year 3	Year 4 Year 5		
	Calendar Year	2024		2027 2028		
	Participating Units, Size A	C	1 0	0 0 Incremental units ad	lded, annual (not cumulative).	
NUMBER OF	Participating Units, Size B	0	1	0 0		
PARTICIPANTS	Participating Units, Size C  Unit of Participation	= District energy system implementing GHG reduc	tion projects	1 0		
	Calculations & Other Explanation:					
		Year 1	Year 2 Year 3	Year 4 Year 5 USD (Nominal) C	Cost Unit:	
	Annual Total Utility Incremental Cost, Size A	\$ 39,800		\$ 10,709 \$ 61,030 total cost per ye	These incremental utility costs are what will count against the NGIA	budget cap for this measure and will be used in the Utility Cost, and Non
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C	\$ 39,800 \$ 39,800	\$ 1,290,094 \$ 1,260,397	\$ 10,709 \$ 61,030 total cost per ye \$ 1,260,709 \$ 61,030 total cost per ye		m of utility admin costs to run pilot, any incentive funding to support proj ital investments made on select pilots
	Annual Total Utility Incremental Cost, Size C	\$ 39,800	\$ 1,290,094 \$ 1,290,397	\$ 1,260,709 \$ 61,030 total cost per ye	ar acposition, analysis as annual revenue requirement for cap-	medining made on delect photo.
		Year 1	Year 2 Year 3	Year 4 Year 5 USD (Nominal) C		
	Fixed O&M Cost, Size A	\$ 9,800				lvertising and Promotions, Utility Administration, Trade Ally Incentives, and
	Fixed O&M Cost, Size B Fixed O&M Cost, Size C	\$ 9,800 \$ 9,800		\$ 10,709 \$ 61,030 total cost per ye \$ 10,709 \$ 61,030 total cost per ye	· ·	
	Fixed Odivi Cost, 3ize C	3,000	\$ 10,034 \$ 10,337	total cost per ye	31	
		Year 1	Year 2 Year 3	Year 4 Year 5 USD (Nominal) C		
	Total Project Delivery, Size A	\$ 9,800 \$ 9,800			Total internal and external project delivery	
	Total Project Delivery, Size B Total Project Delivery, Size C	\$ 9,800				
	Total Troject Schroly, Size o	0,000	10,004	0,,000 por year		
		Year 1	Year 2 Year 3	Year 4 Year 5 USD (Nominal) C		
	Internal Project Delivery, Size A Internal Project Delivery, Size B	\$ 9,800 \$ 9,800	\$ 10,094 \$ 10,397 \$ 10,094 \$ 10,397	\$ 10,709 \$ 11,030 per year \$ 10,709 \$ 11,030 per year	CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" of	ategory above.
	Internal Project Delivery, Size C	\$ 9,800				
		-	+			
		Year 1	Year 2 Year 3	Year 4 Year 5 USD (Nominal) C		
	External Project Delivery, Size A External Project Delivery, Size B	\$ -	\$ - \$ -	\$ - \$ 50,000 per year \$ - \$ 50,000 per year	Cost" category above.	reimburses the vendor. These costs are sub-set of the Utility "Fixed O&M
	External Project Delivery, Size C		\$ - \$ -	\$ - \$ 50,000 per year		
	Advertising and Promotions, Size A	Year 1	Year 2 Year 3	Year 4	These costs are sub-set of the Utility "Fixed O&M Cost" category at	2019
	Advertising and Promotions, Size B	\$ -		\$ - \$ - per year	These costs are say set of the starty Taxes out to category as	
	Advertising and Promotions, Size C	\$ -	\$ - \$ -	\$ - \$ - per year		
		W 4	W	W		
	Allocation of General Portfolio Costs, Size A	Year 1	Year 2 Year 3	Year 4 Year 5 USD (Nominal) C	Share of portfolio level costs, including plan development costs, reg	ulatory coets, and general portfolio coets
	Allocation of General Portfolio Costs, Size B			per year per year	and of portion seed costs, maiduring plan development costs, reg	autory costs, and general portions costs
	Allocation of General Portfolio Costs, Size C			per year		
		Year 1	Year 2 Year 3	Year 4 Year 5 USD (Nominal) C	Sant Hait.	
	Trade Ally Incentives, Size A		\$ - \$ -	\$ - \$ - per year	If applicable, include here the annual amount of trade ally incentives	(e.g. midstream program)
	Trade Ally Incentives, Size B	\$ -	\$ - \$ -	\$ - \$ - per year	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	Trade Ally Incentives, Size C	\$ -	\$ - \$ -	\$ - \$ - per year		
		Year 1	Year 2 Year 3	Year 4 Year 5 USD (Nominal) C	Seet Unit-	
	Workforce Development or Market Transformation Cost, Size A		Year 2 Year 3	\$ - \$ - per year	These costs are sub-set of the Utility "Fixed O&M Cost" category at	pove.
	Workforce Development or Market Transformation Cost, Size B		\$ - \$ -	\$ - \$ - per year		
UTILITY PILOT	Workforce Development or Market Transformation Cost, Size C	\$ -	\$ - \$ -	\$ - \$ - per year		
COSTS		Year 1	Year 2 Year 3	Year 4 Year 5 USD (Nominal) C	Cost Unit:	
	Other Fixed O&M Cost. Size A		\$ - \$ -	\$ - \$ - per year	These costs are sub-set of the Utility "Fixed O&M Cost" category all	nove.
	Other Fixed O&M Cost, Size B	-	\$ - \$ -	\$ - \$ - per year		
	Other Fixed O&M Cost, Size C	\$ -	\$ - \$ -	\$ - \$ - per year		

		Ye	ear 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Total utility capital investment, Size A	\$	-	\$ -	\$ -	\$ - \$	-	per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the
	Total utility capital investment, Size B Total utility capital investment, Size C	\$	-	\$ - \$ -	\$ - \$ -	\$ - \$ \$ - 5	-	per year per year	incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital investments (shown below).
					-				-
	Est. Annual Revenue Requirement for Capital Projects, Size A	Ye	ear 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as
	Est. Annual Revenue Requirement for Capital Projects, Size B	Š	-	\$ -	\$ -	\$ - 5	-	per year	well as the utility "Fixed O&M Costs" captured above. This revenue requirement is calculated from the magnitude & timing of capital investment
	Est. Annual Revenue Requirement for Capital Projects, Size C	\$	-	\$ -	\$ -	\$ - \$	-	per year	captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
		Т		USD (Nominal) Cost Unit:					
	Est. Total Revenue Requirement for Capital Projects, Size A Est. Total Revenue Requirement for Capital Projects, Size B	\$		per year per year					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to
	Est. Total Revenue Requirement for Capital Projects, Size C	\$	-	per year					calculate any of the NGIA evaluation criteria.
		Y	ear 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives, Size A	\$	30,000		\$ -	\$ - \$	-	per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc). Do not include
	Incentives, Size B Incentives, Size C	\$	30,000 30,000		\$ 1,250,000 \$ 1,280,000	\$ - \$ \$ 1,250,000 \$	-	per year per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will
		-			, , , , , , , ,	, , , , , , , , ,		1	ha wearl in the Particinant Cost tests for the MCM audication reltaria
	Incentives per Participant, Size A		ear 1 DIV/O!	Year 2 \$ 1,250,000	Year 3 #DIV/O!	Year 4 #DIV/O!	Year 5 #DIV/O!	USD (Nominal) Cost Unit: per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size B	#0	DIV/O!	\$ 1,280,000	\$ 1,250,000	#DIV/0!	#DIV/O!	per participant per year	
	Incentives per Participant, Size C	#0	DIV/O!	\$ 1,280,000	\$ 1,280,000	\$ 1,250,000	#DIV/O!	per participant per year	
	Calculations & Other Explanation:								
	In line with approaches used in CIP custom programs, plan to assess incentives	hoosed on the minimum	of accord cana Limited to a	reiest resolving a 1 vest ser	haal: limitad ta aasasia	a EOV of increments	Lancian limitad	to an inconting of \$V/Dth appual and appian	and with a maximum insentive connect at \$15 million
	For this project, based on the economics, expect the \$/Dth to be the limiting fa								
	Incentive Cap			\$/Dth annual gas savings					
	•		25	#/Dtil allilual gas saviligs	'	Note Cir custom inc	entive is based	on \$5/Dth annual savings	
	Support for Feasibility/Engineering Study Engineering Study Total Cost	:		CNP plans to cover 20% of CNP expects these costs to					
	,		\$200,000	CNP expects these costs to	be in the range of \$160	K to \$200K.			
	Total Project Cost		2,475,000	A	and the section of th			and the state of t	
	Baseline Upgrade Option Total Incremental Project Cost		2,475,000	Assuming baseline option w	ould be to keep perform	ning routine mainten	ance and make	existing boilers and steam chillers last as lo	ng as possible. This would not improve efficiency, and it would not add anything to their current maintenance costs. So tr
	M&V - Total Cost for Whole Pilot	•	\$50,000						
		Ye	ear 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	_
	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B	\$	2,675,000 2,675,000		\$ 2,675,000 \$ 2,675,000			per participant per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor
	Total Pilot Upfront Costs, Size C	\$	2,675,000					per participant per participant	include utility program admin costs.
		Y	ear 1	Vear 2	Year 3	Vear 4	Year 5	USD (Nominal) Cost Unit:	
	Third Party Funding, Size A	Ye	ear 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per participant	If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's
TOTAL AND DIRECT	Third Party Funding, Size B	Yo	ear 1	Year 2	Year 3	Year 4	Year 5	per participant per participant	If there are expectations for external funding sources (eg. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
PARTICIPANT PILOT	Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:	IRA, etc	ear 1	Year 2	Year 3	Year 4	Year 5	per participant	If there are expectations for external funding sources (eg. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
	Third Party Funding, Size B Third Party Funding, Size C	IRA, etc	ear 1	Year 2	Year 3	Year 4	Year 5	per participant per participant	If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS	Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A	IRA, etc	ear 1 2,645,000	Year 2 \$ 1,425,000	Year 3 \$ 2,675,000	Year 4 \$ 2,675,000 \$	Year 5 3 2,675,000	per participant per participant per participant USD (Nominal) Cost Unit: per participant	not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted
PARTICIPANT PILOT COSTS	Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B	IRA, etc	ear 1	Year 2 \$ 1,425,000	Year 3	Year 4 \$ 2,675,000 \$	Year 5 3 2,675,000	per participant per participant per participant USD (Nominal) Cost Unit: per participant	not used to calculate any of the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS	Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C	IRA, etc Ye	ear 1 2,645,000 2,645,000 2,645,000	Year 2 \$ 1,425,000 \$ 1,395,000 \$ 1,395,000	Year 3 \$ 2,675,000 \$ 1,425,000 \$ 1,395,000	Year 4 \$ 2,675,000 \$ \$ 2,675,000 \$ \$ 1,425,000 \$	Year 5 5 2,675,000 5 2,675,000 6 2,675,000	per participant per participant per participant USD (Nominal) Cost Unit: per participant	not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note
PARTICIPANT PILOT COSTS	Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B	IRA, etc	ear 1 2,645,000 2,645,000 2,645,000 ear 1	Year 2 \$ 1,425,000 \$ 1,395,000 \$ 1,395,000 Year 2	Year 3 \$ 2,675,000 \$ 1,425,000 \$ 1,395,000 Year 3	Year 4 \$ 2,675,000 \$ \$ 2,675,000 \$ \$ 1,425,000 \$ Year 4	Year 5 5 2,675,000 6 2,675,000 7 2,675,000 Year 5	per participant per participant per participant  VSD (Nominal) Cost Unit: per participant per participant per participant per participant	not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a 'Direct Install' approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILOT COSTS	Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:	IRA, etc	ear 1 2,645,000 2,645,000 2,645,000	Year 2 \$ 1,425,000 \$ 1,395,000 \$ 1,395,000 Year 2	Year 3 \$ 2,675,000 \$ 1,425,000 \$ 1,395,000	Year 4 \$ 2,675,000 \$ \$ 2,675,000 \$ \$ 1,425,000 \$	Year 5 5 2,675,000 6 2,675,000 7 2,675,000 Year 5	per participant per participant per participant USD (Nominal) Cost Unit: per participant	not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note
PARTICIPANT PILOT COSTS	Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:	IRA, etc  YI  \$ \$ \$ \$  Your part of the content of	ear 1 2,645,000 2,645,000 2,645,000 ear 1	Year 2 \$ 1,425,000 \$ 1,395,000 \$ 1,395,000 Year 2	Year 3 \$ 2,675,000 \$ 1,425,000 \$ 1,395,000 Year 3	Year 4 \$ 2,675,000 \$ \$ 2,675,000 \$ \$ 1,425,000 \$ Year 4	Year 5 5 2,675,000 6 2,675,000 7 2,675,000 Year 5	per participant per participant per participant  VSD (Nominal) Cost Unit: per participant per participant per participant per participant	not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a 'Direct Install' approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILOT COSTS	Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate Participant Non-Energy Costs, Size A	IRA, etc  YI  \$ \$ \$ \$  Your part of the content of	ear 1 2,645,000 2,545,000 2,645,000	Year 2 \$ 1425,000 \$ 1395,000 \$ 1395,000 Year 2 3.82%	Year 3 \$ 2,675,000 \$ 1,425,000 \$ 1,395,000 Year 3 3,82%	Year 4 \$ 2,675,000   \$ \$ 2,675,000   \$ \$ 1,425,000   \$ Year 4 3,82%	Year 5 2,675,000 2,675,000 2,675,000 Year 5	per participant per participant per participant  USD (Nominal) Cost Unit: per participant per participant per participant per participant per participant [for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per participant per participant	This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGA evaluation criteria. Note I some pilots taking a Direct finantial approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the
PARTICIPANT PILOT COSTS	Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A	IRA, etc  YI  \$ \$ \$ \$  Your part of the content of	ear 1 2,645,000 2,545,000 2,645,000	Year 2 \$ 1,425,000 \$ 1,995,000 \$ 1,995,000 Year 2 3,82%	Year 3 \$ 2,675,000 \$ 1,425,000 \$ 1,395,000 Year 3 3,82%	Year 4 \$ 2,675,000   \$ \$ 2,675,000   \$ \$ 1,425,000   \$ Year 4 3,82%	Year 5 2,675,000 2,675,000 2,675,000 Year 5	per participant per participant per participant  USD (Nominal) Cost Unit: per participant per participant per participant per participant per participant (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life	This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note It some pilots taking a 'Direct Install' approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use
PARTICIPANT PILOT COSTS	Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C	IRA etc  Ye  \$ \$ \$  Ye  Ye  Ye  \$ \$ \$ \$  Ye  Ye	ear1 2,645,000 2,645,000 2645,000 ear1 3,82%	Year 2 \$ 1,425,000 \$ 1,395,000 \$ 1,395,000 Year 2 3,82% Year 2 \$ - \$ - \$ -	Year 3 \$ 2,675,000 \$ 1,425,000 \$ 1,395,000 Year 3 3,82% Year 3 \$ - \$ - \$ - \$ -	Year 4 \$ 2675,000   \$ \$ 2675,000   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 5 2,675,000 2,675,000 2,675,000 Year 5 3,829 Year 5	per participant per participant per participant  USD (Nominal) Cost Unit: per participant per participant per participant per participant per participant [for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per participant per participant	This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGA evaluation criteria. Note I some pilots taking a Direct finantial approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A	IRA, etc  YI  \$ \$ \$  YI  YI  YI  YI  YI  YI  YI	ear 1 2,645,000 2,545,000 2,645,000	Year 2 \$ 1,425,000 \$ 1,995,000 \$ 1,995,000 Year 2 3,82%	Year 3 \$ 2,675,000 \$ 1,425,000 \$ 1,395,000 Year 3 3,82%	Year 4 \$ 2,675,000   \$ \$ 2,675,000   \$ \$ 1,425,000   \$ Year 4 3,82%	Year 5 2,675,000 2,675,000 2,675,000 Year 5 3,829  Year 5	per participant per participant per participant  USD (Nominal) Cost Unit: per participant per participant per participant per participant per participant (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life	This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGA evaluation criteria. Note I some pilots taking a Direct financial sportach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:	IRA, etc  YI  \$ \$ \$  YI  YI  YI  YI  YI  YI  YI	ear1 2.645,000 2	Year 2 \$ 1.425,000 \$ 1.395,000 \$ 1.395,000 Year 2 3.82%  Year 2 \$ - \$ - Year 2 Year 2	Year 3 \$ 2,675,000 \$ 1,425,000 \$ 1,395,000 Year 3 3,82% Year 3 \$ - \$ - Year 3	Year 4 \$ 2,675,000   \$ 2,675,000   \$ 2,675,000   \$ 1,425,000   \$ Year 4 \$ 3.82%   \$ - \$ \$ \$ - \$ \$ \$ - \$ \$ \$ \$ - \$ \$ \$ \$	Year 5 2,675,000 2,675,000 2,675,000 Year 5 3,829  Year 5	per participant per participant per participant  USD (Nominal) Cost Unit: per participant per participant per participant per participant per participant [(for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life	This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Plat costs will be used in the Participant Cost tests for the NDIA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NDIA evaluation criteria.
PARTICIPANT PILOT COSTS	Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:	IRA etc  Ye  \$ \$ \$  Ye  Ye  Ye  Ye  Ye  Ye  Ye	ear1 2.645,000 2	Year 2 \$ 1.425,000 \$ 1.395,000 \$ 1.395,000 Year 2 3.82%  Year 2 \$ - \$ - Year 2 Year 2	Year 3 \$ 2,675,000 \$ 1,425,000 \$ 1,395,000 Year 3 3,82% Year 3 \$ - \$ - Year 3	Year 4 \$ 2,675,000   \$ 2,675,000   \$ 2,675,000   \$ 1,425,000   \$ Year 4 \$ 3.82%   \$ - \$ \$ \$ - \$ \$ \$ - \$ \$ \$ \$ - \$ \$ \$ \$	Year 5 2,675,000 2,675,000 2,675,000 Year 5 3,829  Year 5	per participant per participant per participant per participant per participant  USD (Nominal) Cost Unit: per participant per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant per year of pilot life [for each pilot analysis year)  USD (Nominal) Cost Unit:	This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Plat costs will be used in the Participant Cost tests for the NDIA evaluation criteria Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NDIA evaluation criteria.
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ENERGY SAVINGS: AVG. Dth/ PARTICIPANT SAVED	This district energy system is currently undergoing a study of decarbonization obased roughly on some preliminary results from that study. The idea here is to s	exptions, which will inform the actual type show representative costs and emission	pes of projects the customer looks on reductions, to potentially allocate	to pursue. The final results of a NGIA funding to this type of	f this study will not be f project. May not be	complete in tin an energy efficie	me for the expected NGIA plan filing date ency or electrification project in the end	o, so we are proceeding with a placeholder project for now,
	New Electric Chiller Capacity Cost for New Chiller Chiller Electricity Consumption Estimated Cooling Load	s: n:	5,500 tons \$450 \$/ton 0.61 kWh/ton-hr 4,000,000 ton-hours					
AVG. NON-GAS	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C		0.00 kWh/Participant 0.00 kWh/Participant 0.00 kWh/Participant 0.00 kWh/Participant				its/Part. Saved will be used in the Participant Cos	t tests for the NGIA evaluation criteria.
FUEL UNITS/ PART.	Avg. Additional Non-Gas Fuel Units/Part.Used, Size A Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C Calculations & Other Explanation:		2,440,000 kWh/Participant 2,440,000 kWh/Participant	Avg. Additional Non-Gas Fu	el Units/Part. Used will be	used in the Particip	aant Cost tests for the NGIA evaluation criteria.	
TOTAL ANNUAL Dth SAVED	Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C Calculations & Other Explanation:	Year 1	- 50,	Year 3  000 000 50,000  000 50,000	Year 4  50,000	Year 5	Dth Dth Dth	Natural gas energy savings that result from multiplying savings per participant times the total number of new participants in a given year
GRID MIX SCENARIO	Grid Mix Scenario  Calculations & Other Explanation:	NREL		Select one of the listed grid  *Dtilities shall use electric-u	-		the renewable natural gas facility when it is reason to notived one facility is value a biship aroundston	nably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from National of authors from electric utility is a constitution to a constitution to a Committee of authors from the available to a constitution to a Committee on the authors from the available to a constitution to a Committee on the available to a constitution to a Committee on the available to a constitution to a Committee on the available to a constitution to a Committee on the available to a constitution to a Committee on the available to a constitution to a Committee on the available to a constitution
	This section does not apply to all pilot types. The GHG changes from decrease	sed natural gas and/or electricity con	sumption will be calculated base	d on values above. However,	, for pilots where NG	IA requires lifed	cycle GHG savings (e.g. RNG, hydrogen	carbon capture) this section accounts for the lifecycle change in GHG emissions (per unit of participation).
	Lifecycle GHG Intensity, Size A Low Expected High	Year 1	9.00 Year 2	Year 3	Year 4	Year 5	kg CO2e/participant  O kg CO2e/participant kg CO2e/participant	Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas innovation Actininovation (NGIA) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction to pilip programs and WIAD plans.
LIFECYCLE GHG INTENSITY BY PROJECT SIZE	Lifecycle GHG Intensity, Size B Low Expected High	Year 1	0.00 Year 2	Year 3  O.00  O.00	Year 4	Year 5	kg CO2e/participant  kg CO2e/participant kg CO2e/participant	
	Lifecycle GHG Intensity, Size C Low Expected High	Year 1	0.00	Year 3	Year 4	Year 5	kg CO2e/participant g CO2e/participant kg CO2e/participant	
	Calculations & Other Explanation:							
OTHER BIL OT-SPECI	FIC PARAMETERS (formerly 'General Parameters' in CIP Calculator):							
PEAK REDUCTION FACTOR	Peak Reduction Factor  Calculations & Other Explanation:		1%   The estimated average an tests for the NGIA evaluat.		peak. It is estimated to b	e 1% for energy effic	ciency pilots. The method for other innovative res	ources should be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the Utility Cost and Non Participant Cost
		Values now linked directly back to planning Year 1	assumptions to Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
VARIABLE O&M	Variable O&M Cost, Applies to all project sizes  Calculations & Other Explanation:	Year 1	Year 2	0.04 \$ 0.04 Year 3 250% -5.250%	Year 4	Year 5	per Dth  [for each pilot analysis year]	The CP methodology is used for energy efficiency. However, the value for other invoxivity resources should be considered in the context of specific utility proposals for example, resources like yower-to-hydrogen and RNO may not decrease CoMF costs as they also need to be transported to outstomers on the distribution system. Variable C&M will be used in the Utility Cost and Non Participant Cost tests for the NOIA evaluation criteria.  Annual Escalation Rate calculated using the average percent change in the price of natural gas between 2023 through
NON-GAS FUEL COST	Non-Gas (i.e., Electric) Fuel Cost Calculations & Other Explanation:	\$	USD (Nominal) Cost (	The CIP methodology is use	ed for all resources other they real-time final market load	han strategic electri cational marginal pr	ilication. The method for strategic electrification rices (LMP) at the Minnesota Hub from January 1.	should be considered in the context of specific utility pilot proposals. 2022 to December 31, 2022 using data from Midwest Independent System Operator (MISO)
NON-GAS FUEL LOSS FACTOR	Non-Gas Fuel Loss Factor  Calculations & Other Explanation:		8.22%	The CIP methodology is use factors reported by Minneso	ed for all resources other ti ota Power, Xcel Energy, an	han strategic electri d Otter Tail Power's	ification. The method for strategic electrification is reported 2021 transmission and distribution los	should be considered in the context of specific utility pilot proposals. In the most recent CIP, Staff used the weighted average of the most recent loss factors and weighting by the utilities' 2017-2019 average retail sales

				uco	Cost Unit:							
						Concrett, no obenza from	CIR mathadalam: The f	natar in anio datari uni	ing the final environmental east values approved by	Minnocoto Bublio Utilitico Commissis	o (Commission). The feeton	s are reported in 2021 dollars in Table 2 below, which were calculated by inflat
	Other Non-GHG Pollutants, Size A	\$		0.37 per D		Commission's approved	dollar per ton environme	ital cost values using	escalation rate to adjust by observed inflation betw	een 2014 and 2021. Stakeholders exp	essed a preference for allo	wing utilities to select different externality values for pilots targeting specific
ER NON-GHG	Other Non-GHG Pollutants, Size B	\$		0.37 per D	Oth	geographies or population	ons. For example, an ener	zv efficiency project t	that targets an urban area might use the urban value	rather than the metropolitan fringe v	alue. Similarly, a proiect tan	geting a low-income population might use a high value rather than the median
	Other Non-GHG Pollutants, Size C	s		0.37 per D		Utilities can make deviat	ons such as these in the	r NGIA plans if they co	an provide justification for the change. Instead of re e for the pilot or measure.	quiring the use of median metropolita	n fringe values for all non-0	BHG pollutants, as shown in Table 1 of the Commission's January 3, 2018 Order
22017	other Hori direct orientatios, orze o	•		0.07		DOCKET NO. ED999/CI-I4-	043, utilities may use the	value most applicable	e for the pilot of measure.			
	Calculations & Other Explanation:											
	Net Direct Job Creation, Size A		Year 1		Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life	# of jobs	
	Net Direct Job Creation, Size A Net Direct Job Creation, Size B			0		6	7	3	4		# of jobs # of jobs	Utilities should consider both jobs created by proposed pilots and jo may be eliminated by proposed pilots.
	Net Direct Job Creation, Size C			0		11	10	1	5		# of jobs	
			Year 1		Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life		
	Net Indirect Job Creation, Size A		Teal 1	0	Teal Z	5	1	1	1 Total during 5 program years	8 17	# of jobs	Utilities should consider both jobs created by proposed pilots and jo
	Net Indirect Job Creation, Size B Net Indirect Job Creation, Size C			0		3	4	7	2		# of jobs # of jobs	may be eliminated by proposed pilots.
				-		-			-		[ ,	
OB CREATION			Year 1		Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life	Tu. e	
	Net Induced Job Creation, Size A Net Induced Job Creation, Size A			0		4	4	1	2		# of jobs # of jobs	
	Net Induced Job Creation, Size A			0		7	6	7	3		# of jobs	
	Calculations & Other Explanation:											
	Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.											
	Public Co-Benefits, Size A	ě	Year 1	- 18	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	0	de accepte to the consensation for	there is space for any qualitative comments in the Additional Qualitative
	Public Co-Benefits, Size B	\$		- \$		- \$ -	\$ -	\$ -	per year per year	Considerations section below.	nis metric isn't quantifiable,	there is space for any qualitative comments in the Additional Qualitative
BLIC CO- ENEFITS	Public Co-Benefits, Size C	\$		- \$		- \$ -	\$ -	\$ -	per year			
LINEITIS	Calculations & Other Explanation:	·				·	·	·	·	·		
	Calculations & Other Explanation.											
	Water Pallution Size A	-	Year 1	- 15	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:			
	Water Pollution, Size A Water Pollution, Size B	\$	Year 1	- \$ - \$	Year 2	Year 3	Year 4	Year 5	per year	The legislation left the door op this metric isn't quantifiable, th	n to quantify any costs and tre is space for any qualitat	d benefits on water pollution. This might be quantifiable for some of the projective comments in the Additional Qualitative Considerations section below.
R POLLUTION		\$ \$	Year 1	- \$ - \$ - \$	Year 2	Year 3	Year 4 - \$ - \$ - \$	Year 5 - \$ - \$		The legislation left the door op this metric isn't quantifiable, th	n to quantify any costs and tre is space for any qualitat	d benefits on water pollution. This might be quantifiable for some of the projective comments in the Additional Qualitative Considerations section below.
RPOLLUTION	Water Pollution, Size B	\$ \$	Year 1	-   \$ -   \$ -   \$	Year 2	Year 3	Year 4 - \$ - \$ - \$	Year 5  \$ - \$ -	per year per year	The legislation left the door op this metric isn't quantifisble, th	n to quantify any costs and ere is space for any qualitat	d benefits on water poliusion. This might be quantifiable for some of the projective comments in the Additional Qualitative Considerations section below.
POLLUTION	Water Pollution, Size B Water Pollution, Size C	\$ \$	Year 1	-   \$ -   \$ -   \$	Year 2	Year 3	Year 4	Year 5	per year per year	The legislation left the door op this metric isn't quantifiable, th	n to quantify any costs and are is space for any qualitat	d benefits on water pollution. This might be quantifiable for some of the proje tive comments in the Additional Qualitative Considerations section below.
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Effects on Other		
Energy Systems		
and Energy Security:		
Definition:		
	NGIA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utility and its customers. Measures like strategic electrification specifically require gas utilities and the Commission to avoid negative effects on the electric system. Further,	
	the NGIA empowers the Commission to consider a wide variety of "costs and benefits that may be expected under a plan" one of which is a reduction of reliance on imported resources and national fuel markets.	
	May promote strategic electrification; may reduce overall energy use	
GHG Emissions Notes:		
Definition:	An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for	
	discussion of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.	
Other Pollution		
Notes:		
Definition:	Include any additional non-GHG environmental costs and benefits. For example, effects on water poliution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.	
	Thouse any administration of the fundamental cools and elements of changing, thouse of mount position in any not of quantinatics, or specific an quanty seniority to a run mount continuous, the fundamental cools are also for discontinuous and any mount of the fundamental cools and position of the fundamental cools and position of the fundamental cools and the fundamental cools are also for discontinuous and the fundamental cools are also for discontinuo	
Waste Reduction		
and Reuse Notes:		
	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes	
Definition:	reduction of water use.	
Policy Notes:	NGIA is intended to help the state achieve certain environmental policy goals	
	including geologic gas throughput reduction and increased use of nearestale to the control of th	
Definition:	resources.	
	Reduces fossil gas throughput; may increase use of renewable energy	
Notes:	An innovation plan must include, as applicable, "projected local job impacts	
<u>Notes:</u>	An innovation plan must include, as applicable, "projected local job impacts resulting from implementation of the plan." Utilities should consider both jobs	
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Resource Scalability and Role in a Decarbonized System Notes: Definition:

While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.

Click here to go back to the list of all pilots NGIA Pilot Profiles Workbook >ICF CNP16 - New District Energy System Pilot Project Code: CNP16 Pilot Project Name: Customer Class/ Sector: ow-Income Community Benefit? Target Area: Primary Innovative Resource Category: District Energy Select primary Innovation Category. Others can be listed here: Electrification, Energy Efficiency Pilot Description: CenterPoint Energy proposes a two-part pilot to help current natural gas customers considering developing district energy systems. First, CenterPoint Energy proposes to support customers who hire expert engineering firms, or similar, to complete feasibility studies for new district energy systems. Second, CenterPoint Energy would support customers in developing new district energy systems DESCRIPTION Overview of Program/ Implementation Approach: CenterPoint energy would provide an incentive in support of feasibility/engineering studies looking at opportunities to reduce emissions from existing district energy customers, with the utility planning to cover 20% of the total study cost up to a cap of \$30,000. While incentive approaches/structures to encourage customers to adopt the findings of these studies are still under consideration, CenterPoint is considering leveraging a similar approach to CIP custom programs, with incentives determined based on the minimum of three cost caps (1 year payback, 50% of incremental costs, or \$5/Dth annual gas savings). Generally speaking CenterPoint expectations the \$/Dth cap to be the limiting factor for most projects considered under NGIA, and is considering higher incentive levels than the \$5/Dth for NGIA incentives. Projects that are eligible for rebates in CIP would not be eligible for these NGIA rebates. Other Comments / Information: Program budget would be sized to support 1-3 new systems. KEY PILOT-SPECIFIC INPUTS: Calendar Year 2028 Participating Units, Size A emental units added, annual (not cumulative). NUMBER OF Participating Units, Size B PARTICIPANTS Participating Units, Size C Unit of Participation = District Energy system constructed Calculations & Other Explanation: Size A would represent the RFI respondent's project, while sizes B and C assume additional projects of this nature. Year 1 Year 3 USD (Nominal) Cost Unit: Year 2 Year 4 Year 5 9,800 \$ 271,729 \$ 10,397 \$ 61,030 total cost per year Annual Total Utility Incremental Cost, Size A hese incremental utility costs are what will count against the NGIA budget cap for this measure and will be used in the Utility Cost, and Non Annual Total Utility Incremental Cost, Size B 9,800 61.030 total cost per year Participant Cost tests for the NGIA evaluation criteria. This is the sum of utility admin costs to run pilot, any incentive funding to support project syment, and/or the utility's annual revenue requirement for capital investments made on select pilots total cost per year Annual Total Utility Incremental Cost, Size C Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit: Fixed O&M Cost, Size A 9.800 \$ 10.094 10.397 10.709 61,030 total cost per year ixed O&M Cost is the result of adding up Total Project Delivery, Advertising and Promotions, Utility Administration, Trade Ally Incentives, and orkforce Development of Market Transformation Cost ixed O&M Cost, Size B 9.800 10.397 61.030 10.094 total cost per vear Fixed O&M Cost, Size C total cost per vear Year 1 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit: Year 2 Total Project Delivery, Size A 9,800 \$ 10,094 10,397 \$ 10,709 \$ 61,030 per year otal internal and external project delivery Total Project Delivery, Size B 9,800 \$ 10,094 \$ 10,397 \$ 61,030 per year 10.709 \$ Total Project Delivery, Size C 9,800 \$ 10,094 \$ 10,397 \$ 61,030 per year 10.709 USD (Nominal) Cost Unit: Internal Project Delivery, Size A 9.800 10.094 \$ 10.397 \$ 10.709 \$ 11,030 per year CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" category above. Internal Project Delivery, Size B 9.800 \$ 10.094 \$ 10.397 \$ 10.709 \$ 11,030 per year Internal Project Delivery, Size C 9.800 \$ 10.094 \$ 10.397 \$ 10.709 \$ 11,030 per year USD (Nominal) Cost Unit: Year 2 Year 4 Year 5 External Project Delivery, Size A 50,000 per year ternal vendor costs would include direct install costs where CNP reimburses the vendor. These costs are sub-set of the Utility 'Fixed O&M 50,000 per year ost" category above. External Project Delivery, Size B External Project Delivery, Size C 50,000 per year Year 1 Year 2 Year 4 USD (Nominal) Cost Unit: Advertising and Promotions, Size A per year hese costs are sub-set of the Utility "Fixed O&M Cost" category above. Advertising and Promotions, Size B per year Advertising and Promotions, Size C Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit: Allocation of General Portfolio Costs Size A per year Share of portfolio level costs, including plan development costs, regulatory costs, and general portfolio costs Allocation of General Portfolio Costs, Size B per year Allocation of General Portfolio Costs, Size C per year Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit: Frade Ally Incentives, Size A per year f applicable, include here the annual amount of trade ally incentives (e.g. midstream program) rade Ally Incentives, Size B per vear rade Ally Incentives, Size C per vear USD (Nominal) Cost Unit: Year 1 Year 2 Year 3 Year 4 Year 5 Vorkforce Development or Market Transformation Cost, Size A per year These costs are sub-set of the Utility "Fixed O&M Cost" category above.

UTILITY PILOT	Workforce Development or Market Transformation Cost, Size B Workforce Development or Market Transformation Cost, Size C	\$ - \$ -	\$ - \$ \$ - \$	- \$ - \$	-	\$ - \$ -	per year per year	
COSTS	Other Fixed O&M Cost, Size A Other Fixed O&M Cost, Size B Other Fixed O&M Cost, Size C	Year 1  \$ - \$ - \$ -	Year 2 \$ - \$ \$ - \$ \$ - \$	Year 3 - \$ - \$ - \$ - \$	-	Year 5 \$ - \$ -	USD (Nominal) Cost Unit:  per year  per year  per year	These costs are sub-set of the Utility Tixed OSM Cost category above.
	Total utility capital investment, Size A Total utility capital investment, Size B Total utility capital investment, Size C	Year 1  \$ - \$ - \$ -	Year 2 \$ - \$ \$ - \$ \$ - \$	Year 3 - \$ - \$ - \$ - \$	Year 4	Year 5 \$ - \$ - \$ -	USD (Nominal) Cost Unit:  per year  per year  per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital investments (shown below).
	Est. Annual Revenue Requirement for Capital Projects, Size A Est. Annual Revenue Requirement for Capital Projects, Size B Est. Annual Revenue Requirement for Capital Projects, Size C	Year 1  \$ -   \$ -   \$ -		Year 3 - \$ - \$ - \$	Year 4	Year 5 \$ - \$ -	USD (Nominal) Cost Unit:  per year  per year  per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as well as the utility Tixed OSAH Costs' captured above. This revenue requirement is calculated from the magnitude & timing of capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
	Est. Total Revenue Requirement for Capital Projects, Size A Est. Total Revenue Requirement for Capital Projects, Size B Est. Total Revenue Requirement for Capital Projects, Size C	\$ - p	USD (Nominal) Cost Unit: per year per year per year					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
	Incentives, Size A Incentives, Size B Incentives, Size C	Year 1 \$ - \$ - \$ -	Year 2 \$ 261,635 \$ \$ 261,635 \$ \$ 261,635 \$	Year 3  - \$ 271,635 \$ 271,635 \$	Year 4  5 - 5 - 271,635	Year 5 \$ - \$ -	USD (Nominal) Cost Unit:  per year  per year  per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc.). Do not include here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/DHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will be used in the Destribution Post tract for the ADIG advantance inclinaries.
	Incentives per Participant, Size A Incentives per Participant, Size B Incentives per Participant, Size C	Year 1 #DIV/O! #DIV/O! #DIV/O!	Year 2 \$ 261,635 \$ 261,635 \$ \$ 261,635 \$	Year 3 #DIV/O! 271,635 271,635 \$	Year 4 #DIV/O! #DIV/O! \$ 271,635	Year 5 #DIV/O! #DIV/O! #DIV/O!	USD (Nominal) Cost Unit:  per participant per year  per participant per year  per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Calculations & Other Explanation:  In line with approaches used in CIP custom programs, plan to assess incentive For this project, based on the economics, expect the \$/Dth to be the limiting face.							of \$X/Dth annual gas savings, and with a maximum incentive capped at \$1.5 million.
	Incentive Caj Support for Engineering Stud	p: \$ 25 \$	S/Dth annual gas savings	N	lote CIP custom i	ncentive is bas	sed on \$5/Dth annual savings	dditional projects of this nature CenterPoint could cover a portion of costs for an engineering study, similar to the approa
							illeady been completed), but for sizes with a	dditional projects of this nature CenterPoint could cover a portion of costs for an engineering study, similar to the approa
	Total Project Cos Baseline Upgrado Option Total Incremental Project Cos M&V - Total Cost for Whole Pilo	n: \$ 2,110,000 it: 10,265,000	lat rate assumed, regardless c		v		illeady Deell Completedy, Duct to Sizes with a	ocitional projects of this flature Centerroint could cover a portion of costs for an engineering study, similar to the approa
	Baseline Upgrade Option Total Incremental Project Cos	n: \$ 2,110,000 it: 10,265,000		f pilot size  Year 3  10,265,000 \$  10,265,000 \$	Year 4	Year 5 \$ 10,265,000	USD (Nominal) Cost Unit:  D per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
	Baseline Upgrade Option Total Incremental Project Cos M&V - Total Cost for Whole Pilo  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B	n: \$ 2,110,000 it: 10,265,000 it: \$50,000 f	Year 2 \$ 10,265,000 \$	f pilot size  Year 3  10,265,000 \$  10,265,000 \$	Year 4 \$ 10,265,000 \$ 10,265,000	Year 5 \$ 10,265,000	USD (Nominal) Cost Unit:    per participant   per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 26 USC 48E as an energy storage facility (which includes thermal energy storage property as defined in 26 USC 48E, assume labor requirements with be satified so as to qualify for 30% apposed to 6K do not assume that project is installed in an energy community, which
TOTAL AND DIRECT PARTICIPANT PILOT COSTS	Baseline Upgrade Option Total Incremental Project Cos M&V - Total Cost for Whole Pilo Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B	10.285,000 tt. 10,285,000 ft. 10,285	Year 2 \$ 10,265,000 \$ \$ 10,265,000 \$ \$ 10,265,000 \$  Year 2 \$ 1,665,600 \$ \$ 1,665,600 \$ \$ 1,665,600 \$ \$ 1,665,600 \$	Year 3 10,265,000 \$ 10,265,000 \$ 10,265,000 \$ 10,265,000 \$ 10,665,600 \$ 1,665,	Year 4 \$ 10,265,000   \$ 10,265,000   \$ 10,265,000   Year 4 \$ -   \$ 1,665,600   es.	Vear 5 \$ 10,265,000 \$ 10,265,000 Year 5 \$ - \$ - \$	USD (Nominal) Cost Unit:  D   per participant D   per participant D   per participant USD (Nominal) Cost Unit:  per participant per participant per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NDIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 26 USC 448 as an energy storage property as defined in \$EUSC 448) assume labor
PARTICIPANT PILOT	Baseline Upgrade Option Total Incremental Project Cos M&V - Total Cost for Whole Pilo  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C	2,110,000 tt. 10,285,000 ft. \$ 2,110,000 ft. \$ 10,285,000	Year 2	Year 3  10,265,000 \$  10,265,000 \$  10,265,000 \$  10,665,600 \$  1,665,	Year 4 \$ 10,265,000 \$ 10,265,000 Year 4 \$ - \$ 1,665,600 es.  Year 4 \$ 10,265,000	Year 5 \$ 10,265,000 \$ 10,265,000 Year 5 \$ \$ \$ 10,265,000	USD (Nominal) Cost Unit:  D per participant D per participant USD (Nominal) Cost Unit:  Der participant USD (Nominal) Cost Unit:  Der participant  Der participant  USD (Nominal) Cost Unit:  Der participant  USD (Nominal) Cost Unit:  Der participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NOIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 26 USC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 USC 480, assume labor requirements with be satified so as to qualify for 30% apposed to 6% do not assume that project is intalled in an energy community, which
PARTICIPANT PILOT	Baseline Upgrade Option Total Incremental Project Cos M&V - Total Cost for Whole Pilo Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation: Escalation rat	S   2,110,000	Year 2   \$   10,265,000   \$   \$   10,265,000   \$   \$   10,265,000   \$   \$   10,265,000   \$   \$   1665,600   \$   \$   1665,600   \$   \$   1665,600   \$   \$   1665,600   \$   \$   1665,600   \$   \$   1665,600   \$   \$   1665,600   \$   \$   \$   1665,600   \$   \$   \$   \$   \$   \$   \$   \$   \$	Year 3 10,265,000 \$ 10,265,000 \$ 10,265,000 \$ 10,265,000 \$ 1,665,6	Year 4 \$ 10,265,000   \$ 10,265,000   \$ 10,265,000   Year 4 \$	Year 5 \$ 10,265,000 \$ 10,265,000 Year 5 \$ - \$ - \$ 10,265,000 Year 5 \$ 10,265,000 \$ 10,265,000 \$ 10,265,000 Year 5 \$ 3,82	USD (Nominal) Cost Unit:  D per participant D per participant D per participant USD (Nominal) Cost Unit:  D per participant  D per participant  D per participant  D per participant  USD (Nominal) Cost Unit:  D per participant  D per participant D per participant D per participant D per participant D per participant D per participant D per participant D per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (a.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax or edit pursuant to 26 t06-485 as an energy storage facility (which includes themal energy storage property as defined in 26 t05-495), assume labor requirements will be satified to as to qualify for 30% as opposed to 6% do not assume that project is installed in an energy community, which would increase credit amount to 40%.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note 1 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT	Baseline Upgrade Option Total Incremental Project Cos M&V - Total Cost for Whole Pilo  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:	S   2,110,000	Year 2   \$   10,265,000   \$   \$   10,265,000   \$   \$   10,265,000   \$   \$   10,265,000   \$   \$   1665,600   \$   \$   1665,600   \$   \$   1665,600   \$   \$   1665,600   \$   \$   1665,600   \$   \$   1665,600   \$   \$   1665,600   \$   \$   \$   1665,600   \$   \$   \$   \$   \$   \$   \$   \$   \$	Year 3  10,265,000 \$ 10,265,000 \$ 10,265,000 \$ 10,265,000 \$ Year 3  - \$ 1,665,600 \$ 10,265,000 \$	Year 4 \$ 10,2e5,000 \$ 10,2e5,000 Year 4 \$ - \$ 1,665,600 es. Year 4 \$ 10,2e5,000 \$ 3,27,765 Year 4 3,82%	Year 5 \$ 10,265,000 \$ 10,265,000 Year 5 \$ - \$ - \$ 10,265,000 Year 5 \$ 10,265,000 Year 5 \$ 10,265,000 Year 5 \$ 3,82	USD (Nominal) Cost Unit:  D per participant D per participant D per participant USD (Nominal) Cost Unit:  D per participant  D per participant  D per participant  D per participant  USD (Nominal) Cost Unit:  D per participant  D per participant D per participant D per participant D per participant D per participant D per participant D per participant D per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 26 USC 485 as an energy storage facility (which includes thermal energy storage property as defined in 26 USC 48), assume labor requirements with 8 satified so as to qualy for 30% as opposed to 6% do not assume that project is installed in an energy community, which would increase credit amount to 40%.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note 1 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT PILOT	Baseline Upgrade Option Total Incremental Project Cos M&V - Total Cost for Whole Pilo  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rat  Refund from IR Portion of Costs IRA incentive applicable  Participant Non-Energy Costs, Size A Bestitional Non-Energy Cos	S   2,110,000	Year 2	Year 3  10,265,000 \$ 10,265,000 \$ 10,265,000 \$ 10,265,000 \$ Year 3  - \$ 1,665,600 \$ 10,265,000 \$	Year 4 \$ 10,2e5,000 \$ 10,2e5,000 Year 4 \$ - \$ 1,665,600 es. Year 4 \$ 10,2e5,000 \$ 3,27,765 Year 4 3,82%	Year 5 \$ 10,265,000 \$ 10,265,000 Year 5 \$ - \$ - \$ 10,265,000 Year 5 \$ 10,265,000 Year 5 \$ 10,265,000 Year 5 \$ 3,82	USD (Nominal) Cost Unit:  D per participant D per participant D per participant USD (Nominal) Cost Unit:  D per participant  D per participant  D per participant  D per participant  USD (Nominal) Cost Unit:  D per participant  D per participant D per participant D per participant D per participant D per participant D per participant D per participant D per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (apecifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (a.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax or edit pursuant to 26 t06-485 as an energy storage facility (which includes themal energy storage property as defined in 26 t05-495), assume labor requirements will be satified to as to qualify for 30% as opposed to 6% do not assume that project is installed in an energy community, which would increase credit amount to 40%.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note 1 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	Baseline Upgrade Option Total Incremental Project Cos M&V - Total Cost for Whole Pilo Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding: Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rat  Refund from IR Portion of Costs IRA incentive applicable  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A	S   2,110,000	Year 2	Poliot size   Year 3   10.265,000   \$ 10.265,000   \$ 10.265,000   \$ 10.265,000   \$ 10.265,000   \$ 1.665,600   \$ 1.665,600   \$ 1.665,600   \$ 1.665,600   \$ 1.665,000   \$	Year 4 \$ 10,285,000 \$ 10,265,000 Year 4 \$ - \$ 1,665,600  S 10,265,000 Year 4 \$ 10,265,000 \$ 10,2	Year 5 \$ 10,265,000 \$ 10,265,000 Year 5 \$ - \$ - \$ 10,265,000 Year 5 \$ 10,265,000 Year 5 \$ 10,265,000 Year 5 3,82 Streent tax credies)  Year 5 \$ - \$ - Year 5	USD (Nominal) Cost Unit:  D per participant D per participant D per participant D per participant USD (Nominal) Cost Unit:  D per participant per year of pilot life D per participant per year of pilot life	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NOIA evaluation criteria. In this case we are assuming project would qualify for 30% investment tax credit pursuant to 26 USC 48 as an energy storage property as defined in 5USC 48) assume labor requirements will be satified so as to qualify for 30% as opposed to 6% do not assume that project is installed in an energy community, which would increase credit amount to 40%.  This represents the upfront costs to perticipents who participates in this pilot. This is a calculated value where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NOIA evaluation criteria. Note the some pilots taking a Direct hard approach may see the utility covering all costs, with no upfront francial contribution from the participant.  For an ascalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available form the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available form the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available form the United States

PARTICIPANT NON- ENERGY SAVINGS	Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C Calculations & Other Explanation:	\$ - \$ - \$ - \$ - per participant per year of pilot life \$ - \$ - \$ - per participant per year of pilot life
PILOT LIFE	Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B Average Lifetime for Savings/Pilot Tech, Size C Calculations & Other Explanation:	30 years 30 years 30 years
NATURAL GAS ENERGY SAVINGS: AVG. Dth/ PARTICIPANT SAVED	Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C Calculations & Other Explanation:	10,465 Dth/Participant Expected savings provided by RFI respondent 10,465 Oth/Participant 10,465 Oth/Participant
AVG. NON-GAS FUEL UNITS/ PART.	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C  Avg. Additional Non-Gas Fuel Units/Part.Used, Size A Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C  Calculations & Other Explanation:	Wh/Participant   Units are kWh; could technically be other non-NG. Avg. Non-Gas Fuel Units/Part. Saved will be used in the Participant Cost tests for the NGIA evaluation criteria.   Wh/Participant
TOTAL ANNUAL Dth SAVED	Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C Calculations & Other Explanation:	Year 1         Year 2         Year 3         Year 4         Year 5           -         10,465         -         -         Dth           -         10,465         10,465         -         -           -         10,465         10,465         -         -           -         10,465         10,465         -         Dth
GRID MIX SCENARIO	Grid Mix Scenario  Calculations & Other Explanation:	Select one of the listed grid mix scenarios taking into account that:  **Otilities shall use electric-utility-specific generation mix information for the renewable natural gas facility when it is reasonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from Na Renewable Pengry Laboratory (NREL) Standard Scenarios. If the renewable natural gas facility is using a higher proportion of carbon free electricity than is available by default from their electric utility—either from on-site generation, by subscribing to a Commission-anomized electric utility erean tariff with renewable energy credits retired on the facility's hehalf or for anomized on a case-bu-case hasis usins rether narbon-free generation sources—the filing gas utility may input facility—specific generation information into
	This section does not apply to all pilot types. The GHG changes from decrea unit of participation).	ed natural gas and/or electricity consumption will be calculated based on values above. However, for pilots where NGIA requires lifecycle GHG savings (e.g. RNG, hydrogen, carbon capture) this section accounts for the lifecycle change in GHG emissions (p.
	Lifecycle GHG Intensity, Size A Low Expected High	Year 1 Year 2 Year 3 Year 4 Year 5    Second Control of the Contro
	Lifecycle GHG Intensity, Size B Low Expected High	Year 1         Year 2         Year 3         Year 4         Year 5         kg CO2e/participant           0.00         0.00         0.00         0.00         kg CO2e/participant           kg CO2e/participant         kg CO2e/participant
LIFECYCLE GHG INTENSITY BY PROJECT SIZE	Lifecycle GHG Intensity, Size C Low Expected High	Year 1         Year 2         Year 3         Year 4         Year 5         kg CO2e/participant           0.00         0.00         0.00         0.00         kg CO2e/participant           kg CO2e/participant         kg CO2e/participant
PROJECT SIZE	Calculations & Other Explanation:  Low Scenario Expected Scenario	GHG Intensity  Using this calculation structure is optional; if modifications are needed, please use the hidden rows or raise with project leads.  Size A Size B Size C  kg CO2e/Dth
	High Scenario  Default Geologic Gas Emissions Factor	kg CO2e/Dth 66.14

	I							
OTHER PILOT-SPEC	IFIC PARAMETERS (formerly 'General Parameters' in CIP Calculator):							
PEAK REDUCTION	Peak Reduction Factor	1%	The estimated average annual effect tests for the NGIA evaluation criteria		k. It is estimated to i	be 1% for energy eff	iciency pilots. The method for other innovative reso	urces should be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the Utility Cost and Non Participant Cost
FACTOR	Calculations & Other Explanation:							
	Variable O&M Cost, Applies to all project sizes	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	The CIP methodology is used for energy efficiency. However, the value for other innovative resources should be considered in the context of
VARIABLE O&M	Calculations & Other Explanation:	-5.250%	-5.250%	-5.250%	-5.250%	-5.250%	(for each pilot analysis year)	—specific utility proposals. For example, resources like power-to-hydrogen and RNG may not decrease OSM costs as they also need to be transported to customers on the distribution system. Wraible OSM will be used in the Utility Cost and Non Participant Cost tests for the NGIA evaluation criteria. Note, to calculate this metric, you can make one cost estimate for year I and then use the escalation rate to estimate each Annual Escalation Rate calculated using the everage percent change in the price of natural gas between 2023 through 2027 to all users in the Wer.
NON-GAS FUEL COST	Non-Gas (i.e., Electric) Fuel Cost <u>Calculations &amp; Other Explanation</u>	\$ 44.14						hould be considered in the context of specific utility pilot proposals. D22 to December 31, 2022 using data from Midwest Independent System Operator (MISO)
NON-GAS FUEL LOSS FACTOR	Non-Gas Fuel Loss Factor <u>Calculations &amp; Other Explanation:</u>	8.22%		e CIP methodology is used fo ctors reported by Minnesota I	r all resources other Power, Xcel Energy, a	r than strategic elect and Otter Tail Power	trification. The method for strategic electrification s 's reported 2021 transmission and distribution loss	hould be considered in the context of specific utility pilot proposals. In the most recent CIP, Staff used the weighted average of the most recent loss factors and weighting by the utilities' 2017-2019 average retail sales
OTHER QUANTITATI	VE CRITERIA:							
OTHER NON-GHG POLLUTANTS	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations & Other Explanation:	\$ 0.37	per Dth ge	ommission's approved dollar p ographies or populations. For	er ton environments r example, an energy ch as these in their l	al cost values using vefficiency project to NGIA plans if they co	escalation rate to adjust by observed inflation betw that targets an urban area might use the urban value an provide justification for the change. Instead of re	Minnesots Public Utilities Commission (Commission). The factors are reported in 2021 dollars in Table 2 below, which were calculated by inflating the een 2014 and 2021 Stakeholders expressed a preference for allowing utilities to select different externality values for pilots targeting specific erather than the metropolitan fringe value. Similarly, a project targeting a low-income population might use a high value rather than the median, quiring the use of median metropolitan fringe values for all non-GHG polutants, as shown in Table 1 of the Commission's January 3, 2018 Order in
	Net Direct Job Creation, Size A Net Direct Job Creation, Size B Net Direct Job Creation, Size C	Year 1 0 0 0 0	Year 2  22  22  22  22	Year 3  0 20 20	Year 4 0 0 20	Year 5		Remainder of project life  22 3 # of jobs Utilities should consider both jobs created by proposed pilots and jobs that 42 6 # of jobs may be eliminated by proposed pilots.  48 # of jobs
	Net Indirect Job Creation, Size A Net Indirect Job Creation, Size B Net Indirect Job Creation, Size C	Year 1 0 0 0	Year 2  14  14  14	Year 3  O 13 13	Year 4  O  13	Year 5		Remainder of project life    4
NET JOB CREATION	Net Induced Job Creation, Size A Net Induced Job Creation, Size A Net Induced Job Creation, Size A	Year 1 0 0 0	Year 2  13 13 13	Year 3  0  13  13	Year 4 0 1 13	Year 5		Remainder of project life
	<u>Calculations &amp; Other Explanation:</u> Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.							
PUBLIC CO- BENEFITS	Public Co-Benefits, Size A Public Co-Benefits, Size B Public Co-Benefits, Size C Calculations & Other Explanation:	Year 1  \$ - \$ - \$ -	Year 2  \$ - \$ \$ - \$	Year 3 - \$ - \$ - \$	Year 4	Year 5 \$ - \$ - \$ -	USD (Nominal) Cost Unit: per year per year per year	Quantifiable in some cases. If this metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative Considerations section below.
	Water Pollution, Size A	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per year	The legislation left the door open to quantify any costs and benefits on water pollution. This might be quantifiable for some of the projects. If this

metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative Considerations section below. Water Pollution, Size B per year WATER POLLUTION Water Pollution, Size C Calculations & Other Explanation: DDITIONAL QUALITATIVE CONSIDERATIONS: erspective Notes: It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and IGIA Participants' erspective Notes: It is expected that many of the elements of the participant perspective, with respect to the direct effect of pilots, will be quantifiable and will rely on the structural values. Add here any information related to some direct effects of pilots on participants that may not be easily quantifiable. For example, increased comfort in a home and health benefits from pilots that improve indoor air quality are two examples of benefits that may be difficult to quantify. As with the utility perspective, the direct effects of pilot programs on non-participating customers should be quantified in most cases and can be heavily informed by structural values. ffects on Other nergy Systems nd Energy System will also support cooling reducing demand on electric system GHG Emissions Notes: An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable. Other Pollution Notes: Definition: Include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution. Waste Reduction and Reuse Notes: Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes Definition: Policy Notes: including geologic gas throughput reduction and increased use of renewable Definition: Reduces fossil gas throughput; increases use of renewable energy

Net Job Creation	
Notes:	
	An innovation plan must include, as applicable, "projected local job impacts
	resulting from implementation of the plan." Utilities should consider both jobs
Definition:	created by proposed pilots and jobs that may be eliminated by proposed pilots.
<u>Economic</u>	
<u>Development</u> Notes:	
	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training
	opportunities would provide additional economic benefits.
	Projects may follow IRA labor requirements to take advantage of higher tax credits
	Tujects may fullow the labul requirements to take advantage of higher tax cledits
Public Co-Benefits	
Notes:	
Definition:	
	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.
Market_	
<u>Development</u>	
Notes:	
	The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are
	tolicu
Direct Innovation	
Support Notes:	
	This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA.40 are unlikely to produce
	significant benefits on their own but are intended to lead to future opportunities.
Pasaurca	
Resource Scalability and Role	
in a Decarbonized	
System Notes:	
Definition:	
	While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and
	regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.
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기스 기CF	CNP17 - Industrial Electrification Incentive Program	Click here to go back to the list of all pilots			NGIA Pilot Profiles Workbook		
	Pilot Project Code:	CNP17					
	Pilot Project Name: Customer Class/Sector:	Industrial Electrification Incentive Program					
	Low-Income Community Benefit?	N					
	Target Area:	Territory-wide					
	Primary Innovative Resource Category:	Strategic Electrification	Select primary Innovation Category	ory. Others can be listed here:			
DESCRIPTION	Pilot Description: CenterPoint Energy proposes to provide support for industrial customers to	electrify low-to-medium heat processes using heat pun	np technologies.				
	Overview of Program/ Implementation Approach:						
	Described of Program unplementation Approach.  Phase 2: The program would begin with a study looking at technical potential.  Phase 2: Installation at 3 - 9 facilities, including system design, installation an Phase 3: Measurement and verification of system performance, and analysis Phase 1 would take up to 1 year. Phases 2 and 3 may take up to 2 years.	d commissioning	of potential customers who could p	oilot heat pump technologies.			
	Other Comments / Information:						
	Scher Comments / mormanos.						
KEY PILOT-SPECIFIC	INDITS:						
KET FIEOT-SI EGII IC							
	Pilot Year Calendar Year Participating Units, Size A Participating Units, Size B Participating Units, Size C Unit of Participat Calculations & Other Explanation:	Year 1  2024  C  C  C  C  C  C  C  C  C  C  C  C  C	3	Year 3 Year 4  2026 2027  0 0  3 0  6 0	Year 5  2028 Oncremental units added, annual (not cumulative) O	e).	
	· ·						
NUMBER OF PARTICIPANTS							
		Year 1 149,000	Year 2 502.970 \$	Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:		
	Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B	\$ 149,000		454,484 \$ 10,709 \$	11,030 total cost per year 11,030 total cost per year	Participant Cost tests for the NGIA evaluation criteria. This is the si	budget cap for this measure and will be used in the Utility Cost, and Non m of utility admin costs to run pilot, any incentive funding to support projec
	Annual Total Utility Incremental Cost, Size C	\$ 149,000	\$ 502,970 \$	854,484 \$ 10,709 \$	11,030 total cost per year	deployment, and/or the utility's annual revenue requirement for ca	ital investments made on select pilots.
		Year 1	Year 2	Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:		
	Fixed O&M Cost, Size A	\$ 149,000	\$ 502,970 \$	10,397 \$ 10,709 \$	11,030 total cost per year	Fixed O&M Cost is the result of adding up Total Project Delivery, A	lvertising and Promotions, Utility Administration, Trade Ally Incentives, and
	Fixed O&M Cost, Size B	\$ 149,000	\$ 502,970 \$	454,484 \$ 10,709 \$	11,030 total cost per year	Workforce Development of Market Transformation Cost	
	Fixed O&M Cost, Size C	\$ 149,000	\$ 502,970 \$	854,484 \$ 10,709 \$	total cost per year		
		Year 1	Year 2	Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:		
	Total Project Delivery, Size A	\$ 149,000		10,397 \$ 10,709 \$	11,030 per year	Total internal and external project delivery	
	Total Project Delivery, Size B	\$ 149,000		451,984 \$ 10,709 \$			
	Total Project Delivery, Size C	\$ 149,000	\$ 500,470 \$	851,984 \$ 10,709 \$	11,030 per year		
		Year 1	Year 2	Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:		
	Internal Project Delivery, Size A	\$ 49,000	\$ 50,470 \$	10,397 \$ 10,709 \$	11,030 per year	CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost"	ategory above
	Internal Project Delivery, Size A	\$ 49,000	\$ 50,470 \$	51,984 \$ 10,709 \$	11,030 per year	Stall. These costs are sub-set of the officer Fixed Oal Cost	
	Internal Project Delivery, Size C	\$ 49,000		51,984 \$ 10,709 \$	11,030 per year		
				<u> </u>			
	Eutomal Brainst Dalivany Siza A	Year 1 100,000	Year 2 \$ 450,000 \$	Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:	External yanglar agets would just the first first the state of the sta	reimburses the vendor. These costs are sub-set of the Utility "Fixed O&M
	External Project Delivery, Size A External Project Delivery, Size B	\$ 100,000 \$ 100,000		- \$ - \$ 400.000 \$ - \$	- per year - per year	External vendor costs would include direct install costs where CNF Cost" category above.	reimourses the vendor. These costs are sub-set of the Utility 'Fixed O&M
	External Project Delivery, Size B External Project Delivery, Size C	\$ 100,000		800,000 \$ - \$	- per year - per year		
	V	·					
	l	Year 1	Year 2	Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:		
	Advertising and Promotions, Size A		\$ 2,500 \$ \$ 2,500 \$	- \$ - \$		These costs are sub-set of the Utility "Fixed O&M Cost" category s	bove.
	Advertising and Promotions, Size B	φ –	\$ 2,500 \$	2,500 \$ - \$	- per year		

	Advertising and Promotions, Size C	\$ -	\$ 2,500 \$	2,500 \$	- \$	-	per year	
		Year 1	Year 2 Year	r 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Allocation of General Portfolio Costs, Size A						per year	Share of portfolio level costs, including plan development costs, regulatory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size B						per year	
	Allocation of General Portfolio Costs, Size C						per year	
		"						
		Year 1	Year 2 Year		Year 4	Year 5	USD (Nominal) Cost Unit:	If applicable, include here the annual amount of trade ally incentives (e.g. midstream program)
	Trade Ally Incentives, Size A Trade Ally Incentives, Size B		\$ - \$ \$ - \$	- \$ - \$	- \$		per year per vear	If applicable, include here the annual amount of trade ally incentives (e.g. midstream program)
	Trade Ally Incentives, Size B Trade Ally Incentives, Size C		\$ - \$	- \$ - \$			/	
	Thousand the state of	Ψ					por your	
		Year 1	Year 2 Year	r 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Workforce Development or Market Transformation Cost, Size A		\$ - \$	- \$			per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Workforce Development or Market Transformation Cost, Size B		\$ - \$	- \$	- \$		per year	
UTILITY PILOT	Workforce Development or Market Transformation Cost, Size C	-	\$ - \$	- \$	- \$	-	per year	
COSTS		Year 1	Year 2 Year	r 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Other Fixed O&M Cost, Size A		\$ - \$	- \$	- \$		per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Other Fixed O&M Cost, Size B	\$ -	\$ - \$	- \$	- \$	-	per year	
	Other Fixed O&M Cost, Size C	\$ -	\$ - \$	- \$	- \$	-	per year	
		Year 1	Year 2 Yea	- •	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Total utility capital investment, Size A		\$ - \$	- \$			per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the
	Total utility capital investment, Size B		\$ - \$	- \$	- \$		per year	incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital
	Total utility capital investment, Size C		\$ - \$	- \$	- \$		' '	investments (shown below).
				•				
		Year 1	Year 2 Year		Year 4	Year 5	USD (Nominal) Cost Unit:	
	Est. Annual Revenue Requirement for Capital Projects, Size A		\$ - \$ \$ - \$	- \$ - \$	- \$		per year per vear	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as well as the utility "Fixed O&M Costs" captured above. This revenue requirement is calculated from the magnitude & timing of capital investment
	Est. Annual Revenue Requirement for Capital Projects, Size B Est. Annual Revenue Requirement for Capital Projects, Size C		\$ - \$	- \$ - \$	- \$		per year per year	captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
	7	-	1.		1.7		Jan. 7-2.	
		Total	USD (Nominal) Cost Unit:					
	Est. Total Revenue Requirement for Capital Projects, Size A		per year					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to
	Est. Total Revenue Requirement for Capital Projects, Size B		per year					reasure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
	Est. Total Revenue Requirement for Capital Projects, Size C	-	per year					
		Year 1	Year 2 Year	- 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives, Size A		\$ - \$	- \$	- \$	-	per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc.). Do not include
	Incentives, Size B		\$ - \$	- \$	- \$		per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will
	Incentives, Size C	\$ -	\$ - \$	- \$	- \$	-	per year	ha read in the Participant Cost tests for the MCIA evaluation criteria
		Year 1	Year 2 Year	. 2	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives per Participant, Size A	#DIV/0!	\$ - #DIV		#DIV/O!	#DIV/O!	per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size B	#DIV/O!	\$ - \$		#DIV/O!	#DIV/O!	per participant per year	
	Incentives per Participant, Size C	#DIV/0!	\$ - \$	- :	#DIV/O!	#DIV/0!	per participant per year	
	Calculations & Other Explanation:							
	Calculations & Other Explanation:	Di	ot Costs (for 6 heat pump pilot)					
		Equipment survey and estimation of		pilot sizes				
		Pilot testing phase: industrial heat pum	•					
		installation costs for demonstrations			e this based or	pilot size		
		Measurement and validation	: \$50,000 Fixed for all p	pilot sizes				

Total Pilot Upfront Costs, Size A
Total Pilot Upfront Costs, Size B
Total Pilot Upfront Costs, Size C
Third Party Funding, Size A
Third Party Funding, Size B
Third Party Funding, Size C
Description of source of external funding

OTAL AND DIRECT
ARTICIPANT PILOT
COSTS
Direct Participant Pilot Costs, Size B
Direct Participant Pilot Costs, Size B
Direct Participant Pilot Costs, Size C

Calculations & Other Explanation:

Year 1	Year 2	Year 3	Year 4		Year 5	USD (Nominal) Cost Unit:
\$ 133,333	\$ 133,333	\$ 133,333	\$ 133,333	\$	133,333	per participant
\$ 133,333	\$ 133,333	\$ 133,333	\$ 133,333	\$	133,333	per participant
\$ 133,333	\$ 133,333	\$ 133,333	\$ 133,333	<b>\$</b> \$	133,333	per participant

USD (Nominal) Cost Unit:

per participant per participant per participant This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.

If there are expectations for external funding sources (e.g., RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.

110,000						
Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:
\$	-	\$ -	\$ -	\$ - \$	-	per participant
\$	-	\$ -	\$ -	\$ - \$	-	per participant
\$	-	\$ -	\$ -	\$ - \$	-	per participant

This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Projection in the Participant Chief costs will be used in the Participant Chief test test for the MSM evaluation criteria. Note I some pilots subtra or Direct Install represent may see the utility covering at Casts, with no upfort financial contribution from the participant contribution.

 Year 1
 Year 2
 Year 3
 Year 4
 Year 5

 Escalation rate
 3.82%
 3.82%
 3.82%
 3.82% (for each pillot analysis year)

For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.

		Year 1	Year 2 Year	3 Year 4 Ye	ar 5 USD (Nominal) Cost Unit:	
	Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B	\$ - \$ \$ - \$	- \$ - \$	- \$ - \$ - \$ - \$	per participant per year of pilot life     per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
	Participant Non-Energy Costs, Size C	\$ - \$	- \$	- \$ - \$	- per participant per year of pilot life	
	Calculations & Other Explanation:	Year 1           Escalation rate         3.82%	Year 2 Year 3.82%	3 Year 4 Ye 3.82% 3.82%	ar 5 3.82% (for each pilot analysis year)	For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON-			<u>.</u>	<u>,                                     </u>		States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
ENERGY COSTS						
		Year 1	Year 2 Year	3 Year 4 Ye	ar 5 USD (Nominal) Cost Unit:	
	Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B	\$ - \$ \$ - \$	- \$ - \$	- \$ - \$ - \$ - \$	per participant per year of pilot life     per participant per year of pilot life	This includes any operating savings like water savings.
	Participant Non-Energy Savings, Size C	\$ - \$	- \$	- \$ - \$	- per participant per year of pilot life	
	Calculations & Other Explanation:					
PARTICIPANT NON-						
ENERGY SAVINGS						
	Average Lifetime for Savings/Pilot Tech, Size A	20 ye	ars			
	Average Lifetime for Savings/Pilot Tech, Size B Average Lifetime for Savings/Pilot Tech, Size C	20 ye 20 ye	ars ars			
	Calculations & Other Explanation:					
PILOT LIFE						
	Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B	3135 Dt 3135 Dt	h/Participant h/Participant			
	Avg. Dth/Participant Saved, Size C		h/Participant			
	Calculations & Other Explanation:	In the above estimates we match match the level of e Ultimtately, there is a lot of uncertainty in the savings				5 for the heat pump, and that heat from an 80% efficient gas boiler is being displaced.
NATURAL GAS ENERGY SAVINGS:		of unitately, there is a lot of uncertainty in the savings	triat will be achieved, given now site an	a application specific triese will be		
AVG. Dth/ PARTICIPANT						
SAVED						
	Avg. Non-Gas Fuel Units/Part. Saved, Size A	0.00 kv	Vh/Participant Units are kWh; c	ould technically be other non-NG. Avg. N	on-Gas Fuel Units/Part. Saved will be used in the Participant C	Cost tests for the NGIA evaluation criteria.
	Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C	0.00 kV	Vh/Participant Vh/Participant	· ·		
			•			
	Avg. Additional Non-Gas Fuel Units/Part.Used, Size A Avg. Additional Non-Gas Fuel Units/Part.Used, Size B	210,000 kv	Vh/Participant Avg. Additional I Vh/Participant	Ion-Gas Fuel Units/Part. Used will be use	d in the Participant Cost tests for the NGIA evaluation criteria.	
	Avg. Additional Non-Gas Fuel Units/Part.Used, Size C		Vh/Participant			
	•					

Calculations & Other Explanation: AVG. NON-GAS Calculated potential electricity consumption based on 70 kW heat pump (RFI respondent suggested 40-100kW range might be targeted), 4000 hours per year operation (e.g. 16 hours/day \* 5 days/week\* 50 weeks/year), and assume running at average of 75% load factor for that time. Ultimately, there is a lot of uncertainty in the electricity consumption that will be added, given how site and application specific this will be. FUEL UNITS/ PART. Year 1 Year 2 Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B 9,404  $Natural\ gas\ energy\ savings\ that\ result\ from\ multiplying\ savings\ per\ participant\ times\ the\ total\ number\ of\ new\ participants\ in\ a\ given\ year$ 9.404 9.404 Total Annual Dth Saved, Size C 9,404 18,809 Calculations & Other Explanation: SAVED Grid Mix Scenario Select one of the listed grid mix scenarios taking into account that: Púllises shall use electric-utility-specific generation mix information for the renewable natural gas facility when it is reasonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from Calculations & Other Explanation: GRID MIX SCENARIO Lifecycle GHG Intensity, Size A Year 1 Year 2 Year 3 Year 4 kg CO2e/participant Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGIA) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations and when Expected 0.00 kg CO2e/participant High kg CO2e/participant determining the expected greenhouse gas reduction of pilot programs and NGIA plans. Lifecycle GHG Intensity, Size B Year 1 Year 2 Year 3 Year 4 kg CO2e/participant Expected 0.00 kg CO2e/participant kg CO2e/participant Lifecycle GHG Intensity, Size C Year 1 Year 2 Year 3 Year 4 kg CO2e/participant LIFECYCLE GHG kg CO2e/participant INTENSITY BY PROJECT SIZE kg CO2e/participant Calculations & Other Explanation: Using this calculation structure is optional; if modifications are needed, please use the hidden rows or raise with project leads. Size A Size C kg CO2e/Dth Low Scenario Expected Scenario High Scenario kg CO2e/Dth Default Geologic Gas Emissions Factor 66.14 OTHER PILOT-SPECIFIC PARAMETERS (formerly 'General Parameters' in CIP Calculator)

15 The estimated average annual effect of the project on system peak. It is estimated to be 1% for energy efficiency pilots. The method for other innovative resources should be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the Utility Cost and Non-Participant Cost tests for the NGIA evaluation criteria.

Peak Reduction Factor

Calculations & Other Explanation:

PEAK REDUCTION FACTOR					
		Values now linked directly back to planning	arrumations tab (possible given the combin	ation of formerly separate Exhibits P and N into a single file)	
	Verichle OSM Cook Applies to all preject sizes	Year 1	Year 2 0.05 \$ 0.04	Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:	The CIP methodology is used for energy efficiency. However, the value for other innovative resources should be considered in the context of
	Variable O&M Cost, Applies to all project sizes	•			specific utility proposals. For example, resources like power-to-hydrogen and RNG may not decrease O&M costs as they also need to be transported to customers on the distribution system. Variable O&M will be used in the Utility Cost and Non Participant Cost tests for the NGIA
	Calculations & Other Explanation:	Year 1	Year 2 -5.250%	Year 3         Year 4         Year 5           5         -5.250%         -5.250%         -5.250% (for each pilot analysis year)	evaluation criteria.  Annual Escalation Rate calculated using the average percent change in the price of natural gas between 2023 through 2027 to all users in the Wet
VARIABLE O&M					
			USD (Nominal) Cost Unit:	The CIP methodology is used for all resources other than strategic electrification. The method for strategic	e electrification should be considered in the context of specific utility pilot proposels
	Non-Gas (i.e., Electric) Fuel Cost	\$	44.14 per MWh	equal to the average of daily real-time final market locational marginal prices (LMP) at the Minnesota Hub	from January 1 2022 to December 31, 2022 using data from Midwest Independent System Operator (MISO)
	Calculations & Other Explanation:				
NON-GAS FUEL					
COST					
	Non-Gas Fuel Loss Factor		8.22% %	The CIP methodology is used for all resources other than strategic electrification. The method for strategic	electrification should be considered in the context of specific utility pilot proposals. In the most recent CIP, Staff used the weighted average of the most recent
	Calculations & Other Explanation:			loss factors reported by Minnesota Power, Xcel Energy, and Otter Tail Power's reported 2021 transmission	and distribution loss factors and weighting by the utilities' 2017-2019 average retail sales
NON-GAS FUEL					
LOSS FACTOR					
OTHER QUANTITATI	VE CRITERIA:				
			USD Cost Unit:	_	
	Other Non-GHG Pollutants, Size A	\$	0.37 per Dth	inflating the Commission's approved dollar per ton environmental cost values using escalation rate to adju-	ues approved by Minnesota Public Utilities Commission (Commission). The factors are reported in 2021 dollars in Table 2 below, which were calculated by st by observed inflation between 2014 and 2021. Stakeholders expressed a preference for allowing utilities to select different externality values for pilots
	Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C	\$	0.37 per Dth  0.37 per Dth	targeting specific geographies or populations. For example, an energy efficiency project that targets an ur than the median. Utilities can make deviations such as these in their NGIA plans if they can provide justific January 3, 2018 Order in Docket No. E1999/C1-14-643, utilities may use the value most applicable for the p	ban area might use the urban value rather than the metropolitan fringe value. Similarly, a project targeting a low-income population might use a high value rather sation for the change. Instead of requiring the use of median metropolitan fringe values for all non-GHG pollutants, as shown in Table 1 of the Commission's life or messure.
	· ·	Ψ	0.07	Juliuda y 3, 2010 Order in Docket No. E1999/CF-N4-043, dulitides may use the value most applicable for the p	iou or measure.
	Calculations & Other Explanation:				
OTHER NON-GHG POLLUTANTS	2024 Gas environmental damage from all criteria pollutants combined	\$	0.37	The factor is calculated using the median range of the final metropolitan fringe environm	ental cost values approved by the Minnesota Public Utilities Commission (Commission)27 for carbon dioxide (CO2), sulfur dioxide
- POLLOTAINTS	2022 Gas environmental damage from all criteria pollutants combined	\$	0.34 per Dth	(SO2), fine particulate matter (PM2.5), carbon monoxide (CO), nitrogen oxides (NOx), an Agency Source: AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors, Volur	d lead (Pb); along with estimated natural gas emission factor (or factors) for each emission provided by the Environmental Protection
			2022 USD adjustment to		,
	Escalation rate from legislation		0.0779 2024 USD		

Annual escalation rate calculated as the average of the 12-month percentage change in the "all items" customer price index available from the United States Bureau of Labor Statistics between 2018 and 2022.

https://www.bls.gov/charts/consumer-price-index/consumer-price-index-by-category-line-chart.htm Year 1 Total during 5 program years Remainder of project life Year 5 Net Direct Job Creation, Size A 6 # of jobs Utilities should consider both jobs created by proposed pilots and jobs that Net Direct Job Creation, Size B Net Direct Job Creation, Size C 13 # of jobs may be eliminated by proposed pilots. 19 # of jobs Year 1 Total during 5 program years Remainder of project life 3 # of jobs 8 # of jobs Net Indirect Job Creation, Size A Utilities should consider both jobs created by proposed pilots and jobs that Net Indirect Job Creation, Size B may be eliminated by proposed pilots. Net Indirect Job Creation, Size C 11 # of jobs NET JOB CREATION Total during 5 program years Remainder of project life 3 # of jobs 8 # of jobs 12 # of jobs Net Induced Job Creation, Size A Net Induced Job Creation, Size A Net Induced Job Creation, Size A Calculations & Other Explanation: Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off. Year 1 USD (Nominal) Cost Unit: Year 2 Year 3 Year 4 Year 5 Public Co-Benefits, Size A uantifiable in some cases. If this metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative onsiderations section below. per year Public Co-Benefits, Size B per year Public Co-Benefits, Size C per year Calculations & Other Explanation: PUBLIC CO-BENEFITS Year 1 Year 2 Year 4 USD (Nominal) Cost Unit: Water Pollution, Size A per year The legislation left the door open to quantify any costs and benefits on water pollution. This might be quantifiable for some of the projects. If Water Pollution, Size B Water Pollution, Size C this metric isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative Considerations section below. per year Calculations & Other Explanation: WATER POLLUTION

3.82%

## ADDITIONAL QUALITATIVE CONSIDERATIONS:

Annual escalation rate

NGIA Utility Perspective Notes:

It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and CIP quantification methods.

NGIA Participants' Perspective Notes: Definition:	It is expected that many of the elements of the participant perspective, with respect to the direct effect of pilots, will be quantifiable and will rely on the structural values. Add here any information related to some direct effects of pilots on participants that may not be easily quantifiable. For example, increased comfort in a home and health benefits from pilots that improve indoor air quality are two examples of benefits that may be difficult to quantify.  May assist MN businesses in achieving GHG goals
	As with the utility perspective, the direct effects of pilot programs on non- participating customers should be quantified in most cases and can be heavily informed by structural values.
Effects on Other Energy Systems and Energy Security: Definition:	NGIA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utility and its customers. Measures like strategic electrification specifically require gas utilities and the Commission to avoid negative effects on the electric system. Further, the NGIA empowers the Commission to consider a wide variety of "costs and benefits that may be expected under a plan" one of which is a reduction of reliance on imported resources and national fuel markets.
GHG Emissions Notes: Definition:	Promotes strategic electrification  An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for
Other Pollution Notes: Definition:	discussion of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.
Waste Reduction and Reuse Notes:	Include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.  Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes
Policy Notes:	NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable
Definition:	resources. Reduces fossil gas throughput; increases use of renewable energy
Notes:	An innovation plan must include, as applicable, "projected local job impacts resulting from implementation of the plan" Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.
Economic_ Development Notes; Definition:	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.
Public Co-Benefits Notes: Definition:	

	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.
et. dopment.	
is: nition:	The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are realized
	May help MN businesses appeal to customers interested in sustainability
ort Notes:	
ition:	This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA,40 are unlikely to produce significant benefits on their own but are intended to lead to future opportunities.
	Opportunity for customers to learn about novel options for reducing GHGs from their systems
urce_	
ability and Role Decarbonized	
em Notes: nition:	
iidori.	While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.
	Strategic electrification necessary part of net zero strategy

N∠ ∕ICF	CNP18 - Commercial hybrid heating pilot	Click here to go back to the list of all pilots			NGIA Pilot Profiles Workbook		
	Pilot Project Code:	CNP18					
	Pilot Project Name:	Commercial hybrid heating pilot					
	Customer Class/ Sector:	C&I					
	Low-Income Community Benefit?	N					
	Target Area:	Territory-wide					
	Primary Innovative Resource Category:	Strategic Electrification S	Select primary Innovation Categor	ory. Others can be listed here:			
	<u>Pilot Description:</u> CenterPoint Energy proposes to provide support for commercial buildings inte	rested in replacing existing Heating, Ventilation, and A	Air Conditioning ("HVAC") system	ns with hybrid system using electric hea	at pumps and gas backup.		
DESCRIPTION							
	Overview of Program/ Implementation Approach: The programmatic approach used here is based on a similar program run by C the remaining portion of installation costs (40%) and some program administra This pilot would be conducted in coordination with ETA, which has chosen hyb between both efforts.	ation costs. A significant budget for monitoring/meteri	ring, analysis, and reporting on th	ne system results is also included in the	pilot funding.		
	Other Comments / Information: Pilot sizes differ depending on number of participants.						
	A DIRECTOR						
EY PILOT-SPECIFIC	INPUTS:						
NUMBER OF PARTICIPANTS	Pilot Vear Calendar Vear Participating Units, Size A Participating Units, Size B Participating Units, Size C Unit of Participation Calculations & Other Explanation:	Year 1 2024 10 15 20 18 20 20 Facility	Year 2 2025 15 30 45	Year 3         Year 4           2026         2027           15         15           30         30           45         45	Year 5 2028 15 scremental units added, annual (not cumulative) 30 45	)	
	Annual Total Utility Incremental Cost, Size A	Year 1 696,000	Year 2 \$ 895,310 \$	Year 3 Year 4 902,689 \$ 740,140 \$	Year 5 USD (Nominal) Cost Unit: 742,664 total cost per year	Those incremental utility exets are what will equal excited the NGIA	budget cap for this measure and will be used in the Utility Cost, and No
	Annual Total Utility Incremental Cost, Size B	\$ 913.000	\$ 1,546,310 \$	1,553,689 \$ 1,391,140 \$	1,393,664 total cost per year	Participant Cost tests for the NGIA evaluation criteria. This is the sur	m of utility admin costs to run pilot, any incentive funding to support p
	Annual Total Utility Incremental Cost, Size C	\$ 1,130,000	\$ 2,197,310 \$	2,204,689 \$ 2,042,140 \$	2,044,664 total cost per year	deployment, and/or the utility's annual revenue requirement for capi	
	· · · · · · · · · · · · · · · · · · ·		-	-		<del></del>	
		Year 1	Year 2	Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:		
	Fixed O&M Cost, Size A	\$ 372,000		416,689 \$ 254,140 \$		Fixed O&M Cost is the result of adding up Total Project Delivery, Ad Workforce Development of Market Transformation Cost	vertising and Promotions, Utility Administration, Trade Ally Incentives, a
	Fixed O&M Cost, Size B	\$ 427,000 \$ 482,000	\$ 574,310 \$ \$ 739,310 \$	581,689 \$ 419,140 \$ 746,689 \$ 584,140 \$	421,664 total cost per year 586,664 total cost per year	Workforce Development or Market Transformation Cost	
	Fixed O&M Cost, Size C	\$ 482,000	\$ /39,310 \$	/46,689 \$ 584,140 \$	586,664 total cost per year		
		Year 1	Year 2	Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:		
	Total Project Delivery, Size A	\$ 367,000		411,689 \$ 249,140 \$		Total internal and external project delivery	
	Total Project Delivery, Size B	\$ 422,000		576,689 \$ 414,140 \$	416,664 per year		
	Total Project Delivery, Size C	\$ 477,000	\$ 734,310 \$	741,689 \$ 579,140 \$	581,664 per year		
		Year 1 77,000	Year 2 \$ 79,310 \$	Year 3 Year 4 81,689 \$ 84,140 \$	Year 5 USD (Nominal) Cost Unit: 86,664 per year	CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" of	
	Internal Project Delivery, Size A Internal Project Delivery, Size B	\$ 77,000		81,689 \$ 84,140 \$		CNP staff. These costs are sub-set of the Utility Fixed O&M Cost of	ategory above.
	Internal Project Delivery, Size C	\$ 77,000		81,689 \$ 84,140 \$		<del></del>	
	internal i reject delivery, size o	77,000	7 7 7 7 9	01,000 9 34,140 \$	55,554 per year	<del></del>	
		Year 1	Year 2	Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:		
	External Project Delivery, Size A	\$ 290,000	\$ 325,000 \$	330,000 \$ 165,000 \$	165,000 per year	External vendor costs would include direct install costs where CNP r	eimburses the vendor. These costs are sub-set of the Utility "Fixed O&
	External Project Delivery, Size B	\$ 345,000		495,000 \$ 330,000 \$		Cost" category above.	
	External Project Delivery, Size C	\$ 400,000	\$ 655,000 \$	660,000 \$ 495,000 \$	495,000 per year		
		Year 1	Year 2	Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:		
	Advertising and Promotions, Size A	\$ 5,000		5,000 \$ 5,000 \$		These costs are sub-set of the Utility "Fixed O&M Cost" category ab	ove.
	Advertising and Promotions, Size B	\$ 5,000 S		5,000 \$ 5,000 \$		<del></del>	
	Advertising and Promotions, Size C	\$ 5,000	\$ 5,000 \$	5,000 \$ 5,000 \$	5,000 per year		

UTILITY PILOT COSTS

Workforce Development or Market Transformation Cost, Size A Workforce Development or Market Transformation Cost, Size B Workforce Development or Market Transformation Cost, Size C

Other Fixed O&M Cost, Size A Other Fixed O&M Cost, Size B Other Fixed O&M Cost, Size C

Trade Ally Incentives, Size A Trade Ally Incentives, Size B Trade Ally Incentives, Size C

Allocation of General Portfolio Costs, Size A

Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs, Size C

Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:
\$ -	\$ -	\$ -	\$ - \$	-	per year
\$ -	\$ -	\$ -	\$ - \$	-	per year
\$ -	\$ -	\$ -	\$ - \$	-	per year
		•			

Year 3

Year 3

Year 4

Year 2

Year 1

Year 1

USD (Nominal) Cost Unit:

USD (Nominal) Cost Unit:

USD (Nominal) Cost Unit:

per year per year

per year

- per year - per year - per year

Year 5

Year 5

per year per year per year

ese costs are sub-set of the Utility "Fixed O&M Cost" category above. Note, while not planning workforce development / market ansformation costs here, plan to work in partnership with ETA, who are targeting their market transformation support on this technology.

Share of portfolio level costs, including plan development costs, regulatory costs, and general portfolio costs

If applicable, include here the annual amount of trade ally incentives (e.g. midstream program)

These costs are sub-set of the Utility "Fixed O&M Cost" category above.

Total utility capital investments, Size A    S	I annual revenue requirement resulting from these capital enue requirement (return of and on capital additions), as utually a substantial enumbers of the imaginitude & timing of capital investment ell as the utility's return on investment.  It investment captured above, based on expected in the interest of the intere
Vear 1   Vear 2   Vear 3   Vear 4   Vear 5   Vear 4   Vear 5   Vear 4   Vear 5   Vear 5   Vear 4   Vear 5   Vear 5   Vear 4   Vear 5   V	ense requirement (return of and on capital additions), as ulated from the magnitude & trining of capital investment ell as the utility's return on investment.  **rail investment captured above, based on expected It. This cost is noted here for reference, it's not used to gift cards or other fungible payments, etc). Do not include (paying for the cost of energy/GHG audis or direct stomer doesn't hold equipment ownership. Incentives will
Est. Annual Revenue Requirement for Capital Projects, Size A  Est. Annual Revenue Requirement for Capital Projects, Size A  Est. Total Revenue Requirement for Capital Revenue Requirement for Capital Revenue Requirement for Capital Revenue Requirement for Capital Revenue Requir	ulated from the magnitude 6 timing of capital investment ell as the utility's return on investment.  all investment captured above, based on expected it. This cost is noted here for reference, it's not used to to gift cards or other fungible payments, etc.). Do not include or (paying for the cost of energy/GHG audits or direct storner doesn't hold equipment ownership. Incentives will
Est Annual Revenue Requirement for Capital Projects, Size 8  Total  USD (Nominal) Cost Unit:  Est Total Revenue Requirement for Capital Projects, Size A Est Total Revenue Requirement for Capital Projects, Size A Est Total Revenue Requirement for Capital Projects, Size B Est Total Revenue Requirement for Capital Projects (Size B Est Total Revenue Requirement for Capital Projects, Size B Est Total Revenue Requirement for Capital Projects, Size B Est Total Revenue Requirement for Capital Projects (Size B Est T	ulated from the magnitude 6 timing of capital investment ell as the utility's return on investment.  all investment captured above, based on expected it. This cost is noted here for reference, it's not used to to gift cards or other fungible payments, etc.). Do not include or (paying for the cost of energy/GHG audits or direct storner doesn't hold equipment ownership. Incentives will
Est. Annual Revenue Requirement for Capital Projects, Size A  S	ell as the utility's return on investment.  Ial investment captured above, based on expected  It. This cost is noted here for reference, it's not used to  gift cards or other fungible payments, etc.). Do not include  Ior for the cost of energy/GHG audits or direct  stomer doesn't hold equipment ownership, incentives will
Est. Total Revenue Requirement for Capital Projects, Size A  Est. Total Revenue Requirement for Capital Projects, Size B  Test Total Revenue Requirement for Capital Projects, Size B  Test Total Revenue Requirement for Capital Projects, Size C  Test Total Revenue Requirement for Capital Project Costs (Implementation and Capital Costs) For Hybrid Heat Pumps:  Test Total Revenue Requirement for Capital Project Costs (Implementation and Capital Costs) For Hybrid Heat Pumps:  Test Total Revenue Requirement for Capital Revenue Requirement for Capital Project Costs (Implementation and Capital Costs) For Hybrid Heat Pumps:  Test Total Revenue Requirement for Capital Revenue Requirement for Capital Project Costs (Implementation Costs Siloo Si	It. This cost is noted here for reference, it's not used to gift cards or other fungible payments, etc.) Do not include reference from the cost of energy/GHG audits or direct stomer doesn't hold equipment ownership. Incentives will see that the cost of energy of
Est. Total Revenue Requirement for Capital Projects, Size A  Est. Total Revenue Requirement for Capital Projects, Size B  Est. Total Revenue Requirement for Capital Projects, Size B  Est. Total Revenue Requirement for Capital Projects, Size B  Est. Total Revenue Requirement for Capital Projects, Size B  Est. Total Revenue Requirement for Capital Projects, Size B  Est. Total Revenue Requirement for Capital Projects, Size B  Est. Total Revenue Requirement for Capital Projects, Size B  Est. Total Revenue Requirement for Capital Projects, Size C  FYEAT  Vear 2  Vear 3  Vear 4  Vear 5  Vear 5  Vear 5  Vear 5  Vear 9  Ve	It. This cost is noted here for reference, it's not used to gift cards or other fungible payments, etc.). Do not include reference from the cost of energy/GHG audits or direct stomer doesn't hold equipment ownership. Incentives will see that the cost of energy of
Est. Total Revenue Requirement for Capital Projects, Size B  Est. Total Revenue Requirement for Capital Projects, Size C   The region of the Wild version of the Wild	It. This cost is noted here for reference, it's not used to gift cards or other fungible payments, etc.). Do not include reference from the cost of energy/GHG audits or direct stomer doesn't hold equipment ownership. Incentives will see that the cost of energy of
Section   Percent   Perc	ir (paying for the cost of energy/GING audits or direct stormer doesn't hold equipment ownership. Incentives will
Incentives, Size A S 324,000 \$ 486,000 \$ 486,000 \$ 486,000 \$ 486,000 \$ 972,0	ir (paying for the cost of energy/GHG audits or direct stomer doesn't hold equipment ownership, incentives will
Incentives, Size B   \$ 486,000 \$ 972,000 \$ 972,000 \$ 972,000 \$ 972,000 \$ 972,000 per year   ner cost of customer bone late delivered directly to the customer by a param verdor incentives, Size C   \$ 648,000 \$ 1458,000 \$ 1458,000 \$ 1458,000 \$ 1458,000 \$ 1458,000   \$	ir (paying for the cost of energy/GING audits or direct stormer doesn't hold equipment ownership. Incentives will
Year 1   Year 2   Year 3   Year 4   Year 5   USD (Nominal) Cost Unit:	
Incentives per Participant, Size A S 32,400 \$ \$ 32,400 \$ \$ 32,400 \$ \$ 32,400 \$ \$ 32,400 \$ \$ 32,400 \$ \$ 32,400 \$ \$ 32,400 \$ \$ 32,400 \$ \$ \$ 32,400 \$ \$ \$ 32,400 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	ie systems, and reporting on the results)
Incentives per Participant, Size B S 32,400 \$ 32,400 \$ 32,400 \$ 32,400 \$ 32,400 \$ 32,400 per participant per year    \$ 32,400 \$ 32,400 \$ 32,400 \$ 32,400 \$ 32,400 per participant per year    \$ 32,400 \$ 32,400 \$ 32,400 \$ 32,400 per participant per year    **Calculations & Other Explanation:**  **Average Total Project Costs (Implementation and Capital Costs) for Hybrid Heat Pumps: \$81,000 per participant    **Expected External Program Implementation Cost: \$11,000 per participant    **Expected External Program Implementation From RFI respondent (covers detailed monitoring and analysis of 3-4 systems per year, simple monitoring packages on 50% of the standard packages on	ie systems, and reporting on the results)
Incentives per Participant, Size C \$ 32,400 \$ 32,400 \$ 32,400 \$ 32,400   \$ \$ 32,400   \$ \$ 32,400   \$ \$ \$ 32,400   \$ \$ 32,400   \$ \$ 32,400   \$ \$ 32,400   \$ \$ 32,400   \$ \$ 32,400   \$ \$ 32,400   \$ \$ 32,400   \$ \$ 32,400   \$ \$ 32,400   \$ \$ 32,400   \$ \$ \$ 32,400   \$ \$ \$ 32,400   \$ \$ \$ 32,400   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	ie systems, and reporting on the results)
Average Total Project Costs (Implementation and Capital Costs) for Hybrid Heat Pumps:  Expected External Program Implementation Cost:  \$1000 per participant.  \$1000 per participant.    Sincol   Project Costs (Implementation and Capital Costs) for Hybrid Heat Pumps:	e systems, and reporting on the results)
Expected External Program Implementation Cost:    \$11,000   per participant	ie systems, and reporting on the results)
Expected External Program Implementation Cost:    \$11,000   per participant	ne systems, and reporting on the results)
\$ 180,000 \$ 160,000 \$ 165,000 Based on information from RFI respondent (covers detailed monitoring and analysis of 3-4 systems per year, simple monitoring packages on 50% of the	ne systems, and reporting on the results)
	he systems, and reporting on the results)
Customer Portion of Costs: 60%	
Utility Portion of Costs (incentive): 40%	
Note above are total costs, so customer incremental payment would be lower for end of life replacements	
Assumed Baseline Cost for End of Life Replacements: \$60,000 Assumed Portion of Replacements that are End of Life Replacements: 72,00%	
Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:	
Total Pilot Upfront Costs, Size A  \$ 21,000 \$ 21,000 \$ 21,000 \$ 21,000 \$ 21,000   Per participant  This represents the total equipment and installation costs for technologies implemente  Total Pilot Upfront Costs, Size B  \$ 21,000 \$ 21,000 \$ 21,000 \$ 21,000   Per participant  projects that were captured separately above). This cost does not account for what po	d as part of this pilot (specifically non-utility capital ortion of costs may be covered by utility incentives, nor
Total Pilot Upfront Costs, Size C \$ 2,000 \$ 2,000 \$ 2,000 \$ 2,000 per perticipant incide utility program admin costs.	
Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:	
Third Party Funding, Size A \$ 250 \$ 250 \$ 250 \$ 250 \$ 250 per participant If there are expectations for external funding sources (e.g. RA, etc.) account for those very third Party Funding, Size B \$ 250 \$ 250 \$ 250 \$ 250 per participant If there are expectations for external funding sources (e.g. RA, etc.) account for those very third Party Funding, Size B \$ 250 \$ 250 \$ 250 \$ 250 per participant If there are expectations for external funding sources (e.g. RA, etc.) account for those very third Party Funding, Size B	slues here. This funding is noted here for reference, it's
Third Party Funding, Size C         \$ 250         \$ 250         \$ 250         \$ 250         per participant	
TOTAL AND DIRECT Sexiption of source of external funding: IRA, etc	
PARTICIPANT PILOT  COSTS  Direct Participant Pilot Costs, Size A  \$ 5,150 \$ 5,150 \$ 5,150 \$ 5,150 \$ 5,150 \$ 1,	calculated value where utility incentives are subtracted
Direct Participant Pilot Costs, Size B \$ 5,150	articipant Cost tests for the NGIA evaluation criteria. Note
Direct Participant Pilot Costs, Size C \$ 5,150 \$ 5,150 \$ 5,150 \$ 5,150 \$ 5,150 \$ covering all costs, with	
Calculations & Other Explanation:  Year 1  Year 2  Year 3  Year 4  Year 5  Escalation rate  Separation:  Separation:  Separation:  Year 1  Year 2  Year 3  Year 4  Year 5  Year 7  Year 9  Yea	all items" consumer price index available from the United
States Bureau of Labor Statistics, as reported in December for each of the last five year	rs. Using the most recently available data.
Assumed Portion of Participants that Qualify for IRA incentives:  Assumed per customer IRA incentive:  \$50% In order to qualify for IRA incentives, the retrofit would need to achieve a 25% absolute energy savings for the facility. The archetype project included in this profile would result should be used to achieve a 25% absolute energy savings for the facility. The archetype project included in this profile would result should result should be used to achieve a 25% absolute energy savings for the facility. The archetype project included in this profile would result result in this profile would result should result should be used to achieve a 25% absolute energy savings for the facility. The archetype project included in this profile would result result in this profile would result should result should be used to achieve a 25% absolute energy savings for the facility. The archetype project included in this profile would result result in this profile would result should result should be used to achieve a 25% absolute energy savings for the facility. The archetype project included in this profile would result should result should be used to achieve a 25% absolute energy savings for the facility. The archetype project included in this profile would result should result should be used to achieve a 25% absolute energy savings for the facility. The archetype project included in this profile would result should be used to achieve a 25% absolute energy savings for the facility. The archetype project included in this profile would result should be used to achieve a 25% absolute energy savings for the facility. The archetype project included in this profile would result should be used to achieve a 25% absolute energy savings for the facility. The archetype project included in this profile would result should be used to achieve a 25% absolute energy savings for the facility. The archetype project included in this profile would result should be used to achieve a 25% absolute energy savings for the facility should be used t	It in a 72% reduction in space heating energy cor tax bracket; assumes 10,000 sq foot building (de
Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:  Participant Non-Energy Costs, Size A	w costs Portisional Non Foorm Control III have die
Participant Non-Energy Costs, Size B \$ - \$ - \$ - per participant Non-Energy Costs, Size B \$ - \$ - \$ - per participant Non-Energy Costs, Size B	costs. Participant Non-Energy Costs will be used in the
PARTICIPANT NON-Energy Costs, Size C  \$ - \$ - \$ - per participant Non-Energy Costs, Size C	
Calculations & Other Explanation:  Year 1  Year 2  Year 3  Year 4  Year 5  Escalation rate  Security of the Explanation of the	all beautiful and a state of the state of the state of the state of
CS-LIMINUTIFIED 3.002.M 3.002.M 3.002.M 3.002.M 3.002.M 1.002.M 1.002.	ii items consumer price index available from the United
Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:	
Participant Non-Energy Savings, Size A \$ - \$ - \$ - per participant per year of pilot file This includes any operating savings like water savings.	
PARTICIPANT NON- ENERGY SAVINGS Participant Non-Energy Savings, Size C  \$ - \$ - \$ - per participant per year of pilot life  \$ - \$ - \$ - per participant per year of pilot life	
Calculations & Other Explanation:	
Average Lifetime for Savings/Pilot Tech, Size A 15 Average Lifetime for Savings/Pilot Tech, Size B 15 years	
PILOT LIFE Average Lifetime for Savings/Pilot Tech, Size C Syears	
Calculations & Other Explanation:	

NATURAL GAS ENERGY SAVINGS: AVG. Dth/ PARTICIPANT SAVED	Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C Calculations & Other Explanation.	198
AVG. NON-GAS FUEL UNITS/ PART.	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C Avg. Additional Non-Gas Fuel Units/Part.Used, Size A Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C Calculations & Other Explanation:	2,600 kWh/Participant 2,600 kWh/Participant 2,600 kWh/Participant 2,600 kWh/Participant 2,600 kWh/Participant 2,600 kWh/Participant 4,000 kWh/Participant
TOTAL ANNUAL Dth SAVED	Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C Calculations & Other Explanation:	Year 1         Year 2         Year 3         Year 4         Year 5           1,980         2,970         2,970         2,970         Dth         Natural gas energy savings that result from multiplying savings per participant times the total number of new participants in a given year           2,970         5,940         5,940         5,940         Dth           3,960         8,910         8,910         8,910         Dth
GRID MIX SCENARIO	Grid Mix Scenario  Calculations & Other Explanation:	Select one of the listed grid mire scenarios taking into account that:  - Publics shall use electric-utility-specific generation mix information for the renewable natural gas facility when it is reasonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from Maximal Research. Research R
LIFECYCLE GHG INTENSITY BY PROJECT SIZE	This section does not apply to all pilot types. The GHG changes from decreative control of the GHG intensity, Size A Low Expected High Lifecycle GHG intensity, Size B Low Expected High Lifecycle GHG intensity, Size C Low Expected High Calculations & Other Explanation:	Year 1 Year 2 Year 3 Year 4 Year 5    Year 1 Year 2 Year 3 Year 4 Year 5   Year 1 Year 2 Year 3 Year 4 Year 5   Year 2 Year 3 Year 4 Year 5   Year 3 Year 4 Year 5   Year 4 Year 5   Year 1 Year 2 Year 3 Year 4 Year 5   Year 2 Year 3 Year 4 Year 5   Year 3 Year 4 Year 5   Year 4 Year 5   Year 1 Year 2 Year 3 Year 4 Year 5   Year 2 Year 3 Year 4 Year 5   Year 3 Year 4 Year 5   Year 4 Year 5   Year 5 Year 6 Year 6 Year 6 Year 6 Year 7   Year 7 Year 8 Year 8 Year 8 Year 8 Year 8 Year 9 Y
OTHER PILOT-SPECI PEAK REDUCTION FACTOR	FIC PARAMETERS (formerly 'General Parameters' in CIP Calculator):  Peak Reduction Factor  Calculations & Other Explanation:	The estimated average annual effect of the project on system peak. It is estimated to be 1% for energy efficiency pilots. The method for other innovative resources should be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the Utility Cost and Non Participant Cost tests for the NGIA evaluation criteria.
VARIABLE O&M	Variable O&M Cost, Applies to all project sizes Calculations & Other Explanation:	Values now inked directly back to planning assumptions tab (possible given the combination of formerly separate Exhibits Paral Nitro a single filter.  Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit:  1 The CP methodology is used for energy efficiency. However, the value for other innovative resources should be considered in the context of specific unity proposals. For example, resources like power-to-phydrogen and RMG may not decrease CGM costs as they also need to be transported to customers on the distribution system. Variable CGM will be used in the Utility Cost and Annual Escalation Rate calculated using the average percent change in the price of natural gas between 2023 through 2027 to all users in the Unity Cost and SMG may not contained for year 1 and then use the escalation rate to estimate each Annual Escalation Rate calculated using the average percent change in the price of natural gas between 2023 through 2027 to all users in the Unity Cost and C
NON-GAS FUEL COST	Non-Gas (i.e., Electric) Fuel Cost Calculations & Other Explanation:	USD (Nominal) Cost Unit:  \$ 44.14 per MWh  The CVP methodology is used for all resources other than strategic electrification. The method for strategic electrification should be considered in the content of specific utility pilot proposals.  equal to the everage of daily resil-time final market locational marginal prices (LMP) at the Minnesota hub from January 1 2022 to December 31.2022 using data from Midwest independent System Operator (MISO)
NON-GAS FUEL LOSS FACTOR	Non-Gas Fuel Loss Factor  Calculations & Other Explanation:	8.22%   % The CIP methodology is used for all resources other than strategic electrification. The method for strategic electrification should be considered in the context of specific utility pilot proposals. In the most recent CIP, Staff used the weighted average of the most recent los factors reported by Mirnesota Power, Xcel Energy, and Otter Tail Power's reported 2021 transmission and distribution loss factors and weighting by the utilities 2007-2018 average retail sales
OTHER QUANTITATI	VE CRITERIA:	

				USD Cost Unit:							
	Other Non-GHG Pollutants, Size A	\$		0.37 per Dth	the Commission's approv	ed dollar per ton enviror	mental cost values us	ing escalation rate to adjust by observed inflation	between 2014 and 2021. Stakehol	ders expressed a preference	tors are reported in 2021 dollars in Table 2 below, which were calculated by in for allowing utilities to select different externality values for pilots targeting sp
HER NON-GHG	Other Non-GHG Pollutants, Size B	\$		0.37 per Dth	geographies or populatio	ins. For example, an ener	y efficiency project t	hat targets an urban area might use the urban val	ue rather than the metropolitan fri	nge value. Similarly, a project	targeting a low-income population might use a high value rather than the med n-GHG pollutants, as shown in Table I of the Commission's January 3, 2018 Or.
	Other Non-GHG Pollutants, Size C	\$		0.37 per Dth	Docket No. E0999/CI-14-6	343, utilities may use the	value most applicable	of the pilot or measure.	equiling the use of median metro	politari milge values for all noi	ir-darid pulidiants, as shown in Table 1 of the Commission's Salidary 3, 2016 Of
	Calculations & Other Explanation:										
			Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life	e	
	Net Direct Job Creation, Size A Net Direct Job Creation, Size B			2	6	6 6	3		28	5 # of jobs 12 # of jobs	Utilities should consider both jobs created by proposed pilots and j may be eliminated by proposed pilots.
	Net Direct Job Creation, Size C			4	9	9 8	9		38	17 # of jobs	
			Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life	e	
	Net Indirect Job Creation, Size A Net Indirect Job Creation, Size B			3	4	4	3		17	3 # of jobs 7 # of jobs	Utilities should consider both jobs created by proposed pilots and may be eliminated by proposed pilots.
	Net Indirect Job Creation, Size C			3	5	5	5		22	11 # of jobs	
JOB CREATION	Net Induced Job Creation, Size A		Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life	e 3 # of jobs	
	Net Induced Job Creation, Size A Net Induced Job Creation, Size A			3	4	4	4		10	8 # of jobs	
	Net Induced Job Creation, Size A			3	5	6	5		23	11 # of jobs	
	Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.										
			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:			
	Public Co-Benefits, Size A Public Co-Benefits, Size B	\$		- \$	- \$ -	\$ -	\$ -	per year	Quantifiable in some cases. Considerations section belo		t, there is space for any qualitative comments in the Additional Qualitative
UBLIC CO-	Public Co-Benefits, Size B	\$		- S	- \$ -	\$ -	\$ -	per year per year	Considerations section selection		
BENEFITS	Calculations & Other Explanation:										
	Water Pollution, Size A	•	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:			
		\$		- \$	- \$ -	\$ -	\$ -	per year	this metric isn't quantifiable,	open to quantify any costs an there is space for any qualits	nd benefits on water pollution. This might be quantifiable for some of the proje ative comments in the Additional Qualitative Considerations section below.
	Water Pollution, Size B				- 4	\$ -	\$ -	per year			
	Water Pollution, Size B Water Pollution, Size C	\$		- S	- <b>4</b>						
	Water Pollution, Size C	\$		-  \$	<b>.</b>		•				
		\$		- \$	Ψ -						
R POLLUTION	Water Pollution, Size C <u>Calculations &amp; Other Explanation</u> :	\$		- \$							
ER POLLUTION	Water Pollution, Size C	\$		- \$							
ITIONAL QUALITA	Water Pollution, Size C <u>Calculations &amp; Other Explanation:</u> ATIVE CONSIDERATIONS:	\$		-   \$							
ITIONAL QUALITA	Water Pollution, Size C <u>Calculations &amp; Other Explanation:</u> ATIVE CONSIDERATIONS:	\$		-   \$							
ITIONAL QUALITA	Water Pollution, Size C <u>Calculations &amp; Other Explanation</u> :	\$		-  \$							
TIONAL QUALITY  LUtility  pective Notes:	Water Pollution, Size C  Calculations & Other Explanation:  ATIVE CONSIDERATIONS:  It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and.	\$		-  \$							
ER POLLUTION  TIONAL QUALITA  Utility Descrive Notes:	Water Pollution, Size C  Calculations & Other Explanation:  ATIVE CONSIDERATIONS:  It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and.	Š		-  \$							
ER POLLUTION  TIONAL QUALITY  LUTILITY DESCRIVE NOTES:	Water Pollution, Size C  Calculations & Other Explanation:  ATIVE CONSIDERATIONS:  It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and.	Š		-   \$							
TIONAL QUALITY  LUtility  pective Notes:	Water Pollution, Size C  Calculations & Other Explanation:  ATIVE CONSIDERATIONS:  It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and.	Š		-  \$							
TIONAL QUALITA  LUtility pective Notes:  Lipition:	Water Pollution, Size C  Calculations & Other Explanation:  ATIVE CONSIDERATIONS:  It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and.	Š		-  \$							
ITIONAL QUALITA  A Utility pactive Notes:  A Participants' pactive Notes:	Water Pollution, Size C  Calculations & Other Explanation:  ATIVE CONSIDERATIONS:  It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and CIP quantification methods.		et affact of nilots will be ou	antifable and will rely on the str	netural values. Add here at	w information relate	do some direct	effects of cilots on participants that may	not be easily quantifiable to	ur avammle, increased or	unfor
STIONAL QUALITY, A Utility, pactive Notes: sition:  A Participants' pactive Notes:	Water Pollution, Size C  Calculations & Other Explanation:  ATIVE CONSIDERATIONS:  It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and CIP quantification methods.  It is expected that many of the elements of the participant perspective, with n in a home and health benefits from pilots that improve indoor air quality are to		ct effect of pilots, will be qui nellis that may be difficult t	antifiable and will rely on the str	uctural values. Add here an	sy information relate	d to some direct (	iffects of pilots on participants that may	not be easily quantifiable. Fo	or example, increased co	mlort
TIONAL QUALIT,  LUTINAL QUALIT,  LUTINAL PROTECTION  LUTINAL QUALIT,  LUTI	Water Pollution, Size C  Calculations & Other Explanation:  ATIVE CONSIDERATIONS:  It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and CIP quantification methods.		ct effect of pilots, will be que nelfits that may be difficult t	antifiable and will rely on the str o quantify.	uctural values. Add here an	sy information relate	d to some direct e	effects of pilots on participants that may	not be easily quantifiable. Fo	or example, increased co	imfort
ITIONAL QUALITY A Utility pactive Notes: hition:  A Participants' pactive Notes:	Water Pollution, Size C  Calculations & Other Explanation:  ATIVE CONSIDERATIONS:  It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and CIP quantification methods.  It is expected that many of the elements of the participant perspective, with n in a home and health benefits from pilots that improve indoor air quality are to		ct effect of pilots, will be qu nells that mey be difficult t	antifiable and will rely on the str o quantify.	uctural values. Add here an	sy information relate	d to some direct «	iffects of pilots on participants that may	not be easily quantifiable. Fo	ır example, increased co	mfort
ortional quality  A Utility pactive Notes: nition:  A Participants' pactive Notes: inition:	Water Pollution, Size C  Calculations & Other Explanation:  ATIVE CONSIDERATIONS:  It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and CIP quantification methods.  It is expected that many of the elements of the participant perspective, with n in a home and health benefits from pilots that improve indoor air quality are to		ct effect of pilots, will be qu nefits that may be difficult t	antifiable and will rely on the str o quantify.	uctural values. Add here an	sy information relate	d to some direct (	iffects of pilots on participants that may	not be easily quantifiable. Fo	ir example, increased co	imfort.
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Effects on Other	
Energy Systems	
and Energy	
Security: Definition:	
Delinicion.	NGIA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utility and its customers. Measures like strategic electrification specifically require gas utilities and the Commission to avoid negative effects on the electric system. Further,
	the NGIA empowers the Commission to consider a wide variety of "costs and benefits that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel markets.
	Promotes strategic electrification
GHG Emissions	
Notes:	
Definition:	An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for
	discussion of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.
Other Pollution	
Notes:	
Definition:	include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.
	mediate any studiorial from the environmental costs and determined the complete environmental position of the principle environmental position of the position of the principle environmental position of the
Wests Dadustian	
Waste Reduction and Reuse Notes:	
	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes
Definition:	reduction of water use.
Policy Notes:	
	NGIA is intended to help the state achieve certain environmental policy goals
	including geologic gas throughput reduction and increased use of renewable
Definition:	resources.
	Reduces fossil gas throughput; increases use of renewable energy
Net Joh Cuestien	
Net Job Creation Notes:	
Net Job Creation Notes:	
Notes:	An innovation plan must include, as applicable, "projected local job impacts
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Definition:  Economic. Development. Notes: Definition:  Public Co-Benefits. Notes: Definition:  Market. Development. Notes: Definition:	The NOTE appoint place for proposed pilots and place the may be eliminated to proposed pilots.  The NOTE appoint place for proposed pilots and place that may be eliminated by proposed pilots.  The NOTE appoint place the place of pilots and place that may be eliminated by proposed pilots.  The NOTE appoint place that place the place of the pl
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Definition:  Economic, Development, Notes:  Public Co-Benefits Notes: Definition:  Market, Development, Notes: Development, Notes: Development, Notes: Definition:	The NOTE appoint place for proposed pilots and place the may be eliminated to proposed pilots.  The NOTE appoint place for proposed pilots and place that may be eliminated by proposed pilots.  The NOTE appoint place the place of pilots and place that may be eliminated by proposed pilots.  The NOTE appoint place that place the place of the pl

Resource Scalability and Role in a Decarbonized System Notes: Definition:

While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHIG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.

Strategic electrification necessary part of net zero strategy

>  <u>/</u> ✓ICF	CNP19 - Residential deep energy retrofit + electric ASHP pilot (with gas backup	Click here to go back to the list of all pilots			NGIA Pilot Profiles Workbook	
·ICF	Pilot Project Code:	CNP19				
		Residential deep energy retrofit + electric ASHP				
	Pilot Project Name:	pilot (with gas backup)				
	Customer Class/ Sector: Low-Income Community Benefit?	C&I & Res Yes				
	Target Area:	Territory-wide				
	Primary Innovative Resource Category:	Strategic Electrification	Select primary Innovation Category. Others can be listed	here:		Energy efficiency
	Pilot Description:					
	CenterPoint Energy proposes a three-phase pilot program to test a combinatio	n of deep energy retrofits and air-source electric hea	at pumps with gas back-up in a variety of residential building	types.		
DESCRIPTION						
	Overview of Program/ Implementation Approach:					
	The phase 1 building modelling would be used to develop a more detailed 'pilot p	program design' for phase, deciding on things like the	different tiers of measures that the pilot should test (e.g. di	ferent levels of energy efficiency retrofit), the types	of buildings to target, and recruitin	g participants. Phase 2 field testing would see contractors
	engaged to perform the different tiers of retrofits, install the ASHPs (with gas be	ack-up remaining in place), and setting up the meteri	ng equipment. Phase 3 would also leverage external vendors	to implement the program, with the general expecta	tion that this would shift from a dire	act install program to an incentive program (targetting a
	higher number of customers), but the programmatic approach would be not set	ttled until after phase 2. Plan currently targets both si	ngle family homes and multi-family homes, and would consi	der a mix of conventional building shell retrofit techr	nologies as well as a few emerging t	echnology options.
	Other Comments / Information: Participation shown for years 4 and 5, for phase 3, is currently just a placeholder	r ContorPoint will use phases 1 and 2 to inform what r	maker conta for phase 3 (e.g. level of inculation level of ince	ativos, etc.) But we are planning for the budget inclus	dad balaw based on the assumption	as specified for phase 3 and the amount of NGIA hydret
	CenterPoint estimates might make sense to focus here. Need these estimates in	n order to set aside some level of funding for phase 3	i.	invest, etc.). But we are plaining for the badget mode	aca below, based on the assumption	to specified for pridate of the amount of Heavi bedaget
KEY PILOT-SPECIFIC	INPUTS:					
	Pilot Year	Year 1	Year 2 Year 3	Year 4 Year 5		
	Calendar Year	202		2027 2	028	
	Participating Units, Size A Participating Units, Size B	(	7 7	35	70 Incremental units added, annual (not	cumulative).
	Participating Units, Size B Participating Units, Size C		21 21	105	210	
		= Buildings retrofitted				
	Calculations & Other Explanation:					
	Phase 1 - Scoping Study, Program Design, & Recruitment					
NUMBER OF	Size Size	• A 1	0 0	0 0		
PARTICIPANTS	Size		0 0	0 0		
	Phase 2 – Pilot Testing & Phase 3 Broader Roll Out		Phase 2	Phase 3	<del>-</del>	
	Size A - Single Family Home	es 0	6 6	30 60	<del> </del>	
	Size B - Single Family Home	es 0	12 12	60 120		
	Size C - Single Family Hom	es O	18 18	90 180		
	Size A - Multi Family Home	es 0	1 1	5 10		
	Size B – Multi Family Hom Size C – Multi Family Hom	es 0 es 0	3 3	10 20 15 30		
		Year 1	Year 2 Year 3	Year 4 Year 5	USD (Nominal) Cost Unit:	
	Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B	\$ 197,000 \$ 197,000	\$ 1,104,690 \$ 1,107,069 \$ \$ 2,045,070 \$ 2,047,449 \$	1,462,115 \$ 2,792,6 2,790,090 \$ 5,448.5	64 total cost per year  TH  Co	ese incremental utility costs are what will count against the NGIA budget cap for this measure and will be used in the Utility Cost, and Non Participant ast tests for the NGIA evaluation criteria. This is the sum of utility admin costs to run pilot, any incentive funding to support project deployment, and/c
	Annual Total Utility Incremental Cost, Size C	\$ 197,000	\$ 2,985,450 \$ 2,987,829 \$	4,118,065 \$ 8,104,5	total cost per year	e utility's annual revenue requirement for capital investments made on select pilots.
		Year 1	Year 2 Year 3	Year 4 Year 5	USD (Nominal) Cost Unit:	
	Fixed O&M Cost, Size A Fixed O&M Cost, Size B	\$ 197,000 \$ 197,000		379,140 \$ 626,60 624,140 \$ 1,116,60		red O&M Cost is the result of adding up Total Project Delivery, Advertising and Promotions, Utility Administration, Trade Ally Incentives, and Workforce evelopment of Market Transformation Cost
	Fixed O&M Cost, Size B	\$ 197,000	\$ 2,985,450 \$ 2,987,829 \$	869,140 \$ 1,606,6	64 total cost per year 64 total cost per year	
			•	•	*	
		Year 1	Year 2 Year 3	Year 4 Year 5	USD (Nominal) Cost Unit:	
	Total Project Delivery, Size A	\$ 197,000	\$ 1,094,690 \$ 1,097,069 \$	329,140 \$ 576,66	64 per year To	tal internal and external project delivery
	Total Project Delivery, Size B Total Project Delivery, Size C	\$ 197,000 \$ 197,000			64 per year 64 per year	
	Total Project Delivery, 3126 C	9 197,000	\$ 2,575,450 \$ 2,577,025 \$	013,140   \$ 1,330,0	04 per year	
		Year 1	Year 2 Year 3	Year 4 Year 5	USD (Nominal) Cost Unit:	
	Internal Project Delivery, Size A	\$ 77,000	\$ 79,310 \$ 81,689 \$	84,140 \$ 86,66		IP staff. These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Internal Project Delivery, Size B	\$ 77,000 \$ 77,000		84,140 \$ 86,66	64 per year	
	Internal Project Delivery, Size C	\$ //,000	\$ 79,310 \$ 81,689 \$	84,140 \$ 86,66	64 per year	
	External Project Delivery, Size A	Year 1 120,000	Year 2 Year 3 \$ 1,015,380 \$ 1,015,380 \$	Year 4 Year 5 245,000 \$ 490,00	USD (Nominal) Cost Unit:  OO per year	ternal vendor costs would include direct install costs where CNP reimburses the vendor. These costs are sub-set of the Utility 'Fixed O&M Cost'
	External Project Delivery, Size B	\$ 120,000	\$ 1,955,760 \$ 1,955,760 \$	490,000 \$ 980,00	00 per year ca	ternal vendul costs would include direct install costs where GNP reinhouses the vendul. These costs are sub-set of the dulity. Pixed daily cost tegory above.
	External Project Delivery, Size C	\$ 120,000	\$ 2,896,140 \$ 2,896,140 \$	735,000 \$ 1,470,00	00 per year	
	Advantistic and December 1994	Year 1	Year 2 Year 3	Year 4 Year 5	USD (Nominal) Cost Unit:	ese costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Advertising and Promotions, Size A Advertising and Promotions, Size B	\$ -	\$ 10,000 \$ 10,000 \$ \$ 10,000 \$ 10,000 \$	50,000 \$ 50,00	OO per year	ese costs are sub-set of the Utility. Fixed Owin Cost. category above.
	Advertising and Promotions, Size C	\$ -	\$ 10,000 \$ 10,000 \$		DO per year	
		Year 1	Year 2 Year 3	Year 4 Year 5	USD (Nominal) Cost Unit:	

	Allocation of General Portfolio Costs. Size A							
	Allocation of General Portfolio Costs, Size A Allocation of General Portfolio Costs, Size B						per year per year	Share of portfolio level costs, including plan development costs, regulatory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size C						per year	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	_
	Trade Ally Incentives, Size A	\$ - \$	-	\$ - \$	- \$		- per year	If applicable, include here the annual amount of trade ally incentives (e.g. midstream program)
	Trade Ally Incentives, Size B Trade Ally Incentives, Size C	s - s	-	\$ - \$	- \$		- per year - per year	
					1.2		P. 122	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Workforce Development or Market Transformation Cost, Size A	tear 1	Tear 2	Tear 5	Tear 4	rear 5	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
UTILITY PILOT COSTS	Workforce Development or Market Transformation Cost, Size B						per year	
	Workforce Development or Market Transformation Cost, Size C						per year	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	These costs are sub-set of the Utility 'Fixed O&M Cost' category above.
	Other Fixed O&M Cost, Size A Other Fixed O&M Cost, Size B	s - s	-	\$ - \$	- \$		- per year - per year	These costs are sub-set of the Utility Fixed O&M Cost category above.
	Other Fixed O&M Cost, Size C	\$ - \$	-	\$ - \$	- \$		- per year	
				•	·			
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Total utility capital investment, Size A	\$ -  \$	-	\$ - \$	- \$		- per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the incremental
	Total utility capital investment, Size B Total utility capital investment. Size C	\$ - \$	-	\$ - \$	- \$		- per year	costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital investments (shown below).
	Total utility capital investment, Size C	3 - 3	-	2 - 2	- 5		- per year	<u> </u>
	Est. Annual Revenue Requirement for Capital Projects. Size A	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as well as
	Est. Annual Revenue Requirement for Capital Projects, Size A  Est. Annual Revenue Requirement for Capital Projects, Size B	\$ -   \$	-	\$ - \$	- \$ - \$		- per year - per year	the utility "Fixed O&M Costs" captured above. This revenue requirement is calculated from the magnitude & timing of capital investment captured above.
	Est. Annual Revenue Requirement for Capital Projects, Size C	\$ - \$	-	\$ - \$	- \$		- per year	based on expected measure life (and depreciation time period), as well as the utility's return on investment.
		Total U	ISD (Nominal) Cost Unit:					
	Est. Total Revenue Requirement for Capital Projects, Size A		er year					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected measure life
	Est. Total Revenue Requirement for Capital Projects, Size B	\$ - p	er year					(and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
	Est. Total Revenue Requirement for Capital Projects, Size C	\$ - p	er year					THE STREET LINE ID.
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives, Size A Incentives, Size B	\$ - \$	-	\$ - \$	1,082,975 \$		2,165,950 per year 4,331,900 per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc). Do not include here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures),
	Incentives, Size C	\$ - \$	-	\$ - \$	3,248,925 \$	6	,497,850 per year	cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy(GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership, incentives will be used in the Participant Crest mark for the MICIA auditation critaria.
		•			•		·	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives per Participant, Size A	#DIV/0! \$	-	\$ - \$	30,942.14 \$	3	30,942.14 per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size B Incentives per Participant, Size C	#DIV/O! \$ #DIV/O! \$	-	\$ - \$		3	30,942.14 per participant per year 30,942.14 per participant per year	
	incentives per Participant, Size C	#DIV/O! \$	-	\$ - \$	30,942.14 \$		per participant per year	
	Calculations & Other Explanation:							
	Cost for Scoping Study & Program Design:	\$120,000			lni	tial estimates for the br	reakdown	
								Portion of Total Retrofits
	Average Cost per Participating Single Family Home:	Phase 2 (Full Cost Covered)  \$ 67,730 \$	Phase 3 (Incentive)			er 1	Design Load 44 btu/sq ft	Estimated Retrofit Costs   in this Tier
	Average Cost per Participating Single Family Home: Average Cost per Participating Multi Family Building:	\$ 460,000 \$				er 1 er 2	22 btu/sq ft	\$ 29,600 25% \$ 36,690 25%
		•	,		Ti	er 3 - Conventional Tec	h 10 btu/sq ft	\$ 55,630 25%
	Program Delivery & Management (Per Participant):	\$7,000			Ti	er 4 - R&D Tech	10 btu/sq ft	\$ 149,000 25%
		Year 1	Year 2	Year 3	Year 4	Year 5		Note, similar to Tier 3 cost above, ACEEE estimated deep energy retrofit cost (also including central ASHP) of \$52,657
	Performance Monitoring, Size A	\$0 \$	100,000	\$ 100,000	\$0		\$0	for cold region 1970's home, in their Deep Energy Pathways
	Performance Monitoring, Size B: Performance Monitoring, Size C:	\$0 \$0	\$125,000 \$150,000	\$125,000 \$150,000	\$0 \$0		\$O \$O	Report (Amann, et al).
	Performance Monitoring, Size C.	\$0	\$150,000	\$150,000	\$0		\$0	
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Total Pilot Upfront Costs, Size A	\$ - \$	123,769		123,769 \$	Teal 5	123,769 per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that
	Total Pilot Upfront Costs, Size B	\$ - \$	123,769	+	123,769 \$		123,769 per participant	were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program
	Total Pilot Upfront Costs, Size C	\$ -   \$	123,769	\$ 123,769 \$	123,769 \$		123,769 per participant	durin cods.
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Third Party Funding, Size A Third Party Funding, Size B	\$ - \$	-	\$ - \$	- \$		- per participant - per participant	If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
TOTAL AND DIRECT PARTICIPANT PILOT	Third Party Funding, Size C	\$ - \$	-	\$ - \$	- \$		- per participant	
COSTS	Description of source of external funding:	IRA, etc						_
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Direct Participant Pilot Costs, Size A	\$ - \$	-	\$ - \$	92,826 \$		92,826 per participant	This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note I some pilots
	Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C	\$ - \$	-	\$ - \$	92,826 \$ 92,826 \$		92,826 per participant 92,826 per participant	total upfront project costs. Direct Participant Prior costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note it some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.
		In this pilot for phase 2 CenterPoint would cover all co	osts while in phase 3 curtom	ers would start to cover co	sts (although the final o	hase 3 measure nackor		
	Calculations & Other Explanation:	Year 1	Year 2		Year 4	Year 5	co codio look diliterenty	
	Calculations & Other Explanation: Escalation rate	Tear 1 3.82%	3.82%	Year 3 3.82%	3.82%	Tear 5	3.82% (for each pilot analysis	For an escalation rate, we use the
		Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Participant Non-Energy Costs, Size A	\$ - \$	-	\$ - \$	- \$	ruer 5	<ul> <li>per participant per year of</li> </ul>	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the
	Participant Non-Energy Costs, Size B	•					per participant per year of pilot life	Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT NON	. a. acipani Hon-Line gy Costs, size b	-  3	-	-   \$	-  \$		pilotille	

Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGIA) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels

kg CO2e/participant 0.00 kg CO2e/participant

ENERGY COSTS	Participant Non-Energy Costs, Size C <u>Calculations &amp; Other Explanation</u> Escalation rat	Year 1 3.82%	Year 2 3.829	\$ - \$ Year 3 % 3.82%	Year 4 3.82%	Year 5	per participant per year of pilot life  (for each pilot analysis	For an escalation rate, we use the aver	age of the 12-month percentage chang	e in the "all items" consumer price index available from the United States
ARTICIPANT NON- ENERGY SAVINGS	Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C Calculations & Other Explanation:	Year 1  \$ -  \$ -	Year 2 \$ - \$ - \$ -	Year 3  \$ - \$ \$ - \$	Year 4 - - -	Year 5 \$ \$ \$	USD (Nominal) Cost Unit per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any operating savings like	water savings.	
PILOT LIFE	Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B Average Lifetime for Savings/Pilot Tech, Size C Calculations & Other Explanation:		years years years Building Shell 41 699		ngs 40 years buildi	ng shell, 15 years for ASHPs.				
NATURAL GAS INERGY SAVINGS: AVG. DHV PARTICIPANT SAVED	Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C Calculations & Other Explanation:  Ties  Tier  Tier 7	Approx % Load Reduction  R 136  Approx % Load Reduction  R 1 20% 15 80% 16 80% 16 86% 16 555 16 20,225 17 20,447	Dth/Participant Dth/Participant Dth/Participant Dth/Participant  Design Load  44 btu/sq ft 22 btu/sq ft 10 btu/sq ft To btu/sq ft	Portion of Total sh	single family home ace Heating load ifted to electric after retrofit 50% 90% 90% 2,076 17,763 64,808 654,291	Gas savings due to retrofit (Dth/yr)  15 45 60 60	Remaining gas load if no ASHP (Dth/yr)  60 30 15	22.5	Total Estimated Gas Savings (Dth/yr)  45 67.5 73.5 73.5	Remaining Gas Space Heating Load (Oth/yr)
AVG. NON-GAS UEL UNITS/ PART.	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C Avg. Additional Non-Gas Fuel Units/Part. Used, Size A Avg. Additional Non-Gas Fuel Units/Part. Used, Size B Avg. Additional Non-Gas Fuel Units/Part. Used, Size C Calculations & Other Explanation:	0.00 0.00 4,657 4,657	kWh/Participant kWh/Participant kWh/Participant kWh/Participant kWh/Participant kWh/Participant kWh/Participant			on-Gas Fuel Units/Part. Saved will be used in  In the Participant Cost tests for the NGIA of  TIER  Tier 1  Tier 2 - Conventional Tech  Tier 4 - RSD Tech				
OTAL ANNUAL Dth SAVED	Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C Calculations & Other Explanation:	Year 1	Year 2 944 1,889 2,833	1,889	Year 4 4,722 9,444 14,165	Year 5 9,444 18,887 28,331	Dth	Natural gas energy savings that result fro	n multiplying savings per participant tim	es the total number of new participants in a given year
RID MIX SCENARIO	Grid Mix Scenario  Calculations & Other Explanation:	NREL wind 50/50		Select one of the listed grid mix so *Dtilities shall use electric-utility-			cility when it is reasonably available	. When electric utility-specific informat	on is not available, the filing gas utility	will use a state-specific generation mix taken from National Renewable
	This section does not apply to all pilot types. The GHG changes from decreas	sed natural gas and/or electricity consumption will	be calculated based on value	es above. However, for pilots	where NGIA requi	es lifecycle GHG savings (e.g. RNC	G, hydrogen, carbon capture	e) this section accounts for the	lifecycle change in GHG emiss	sions (per unit of participation).

LIFECYCLE GHG INTENSITY BY PROJECT SIZE  OTHER PILOT-SPECI	High  Lifecycle GHG Intensity, Size B  Low Expected High  Lifecycle GHG Intensity, Size C  Low Expected High  Calculations & Other Explanation:  IC PARAMETERS (formerly 'General Parameters' in CIP Calculator): Peak Reduction Factor  Calculations & Other Explanation:	Year 1 0.00 Year 1 0.00	Year 2  O.00  Year 2  O.00  The estimated average annual effect evaluation criteria.	Year 3	Year 4  Year 4  OOO  Year 4  It is estimated to be 1% for energy	Year 5 0.00	kg CO2e/participant  kg CO2e/participant  kg CO2e/participant  kg CO2e/participant  kg CO2e/participant  kg CO2e/participant  kg CO2e/participant	used in the resource's uneryone expected greenhouse gas greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction of pilot programs and NGIA plan greenhouse gas reduction gas greenhouse gas greenhou	recently values will be used in cost-centeric caculations and when determining the expected is.  Reduction Factor will be used in the Utility Cost and Non Participant Cost tests for the NGIA
VARIABLE O&M	Variable O&M Cost, Applies to all project sizes Calculations & Other Explanation:	Values now linked directly back to planning assumptions t Year 1 \$ 0.05 Year 1 n/a	Year 2	Year 3 \$ 0.04 Year 3	Year 4	Year 5 0.04 Year 5 -5.2509	(for each pilot analysis	utility proposals. For example, resources like power-to-hyc customers on the distribution system. Variable O&M will be to calculate this metric, you can make one cost estimate for	er, the value for other innovative resources should be considered in the context of specific forgen and RNG may not decrease G&M costs as they also need to be transported to sued in the Utility Cost and No Participant Cost tests for the NIQL evaluation criteria. Note, or year I and then use the escalation rate to estimate each remaining year.  In change in the price of natural gas between 2023 through 2027 to all users in the West North C.
NON-GAS FUEL COST	Non-Gas (i.e., Electric) Fuel Cost <u>Calculations &amp; Other Explanation</u> :	\$ 4414	USD (Nominal) Cost Unit: per MWh	The CIP methodology is used equal to the average of daily	for all resources other than strate real-time final market locational i	egic electrification. The method for si narginal prices (LMP) at the Minnesot	trategic electrification should be con ta Hub from January I, 2022 to Decer	taidered in the context of specific utility pilot proposals. mber 31, 2022 using data from Midwest Independent System	o Operator (MISO)
NON-GAS FUEL LOSS FACTOR	Non-Gas Fuel Loss Factor <u>Calculations &amp; Other Explanation</u> :	8.22%	%	The CIP methodology is used by Minnesota Power, Xcel End	for all resources other than strat ergy, and Otter Tail Power's repo	agic electrification. The method for s ted 2021 transmission and distributio	trategic electrification should be con in loss factors and weighting by the u	nsidered in the context of specific utility pilot proposals. In the tilities' 2017-2019 average retail sales	ne most recent CIP, Staff used the weighted average of the most recent loss factors reported
OTHER QUANTITATI	/F CRITERIA:								
OTHER NON-GHG POLLUTANTS	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations & Other Explanation	\$ 0.37 \$ 0.37	USD Cost Unit:  per Dth  per Dth  per Dth	approved dollar per top envir	onmental cost values using esca	ation rate to adjust by observed infla	tion between 2014 and 2021 Stakeho	olders expressed a preference for allowing utilities to select	ported in 2021 dollars in Table 2 below, which were calculated by inflating the Commission's different externality values for plots targeting specific geographies or populations. For ea high value rather than the median, Littles can make deviations such as these in their NGIA 2018 Order in Docket No. E1899/CT-14-643, utilities may use the value most applicable for the
NET JOB CREATION	Net Direct Job Creation, Size A Net Direct Job Creation, Size B Net Direct Job Creation, Size C Net Indirect Job Creation, Size A Not Indirect Job Creation, Size A Net Indirect Job Creation, Size B Net Induced Job Creation, Size C Net Induced Job Creation, Size A Calculations & Other Explanation: Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.	Year 1  Year 1  Year 1  O  Year 1  O  O  O  Year 1  O	Year 2  Year 2  Year 2  Year 2  Year 2	Year 3  1	Year 4  5 9 14  Year 4  3 6 9  Year 4  3 7 10	Year 5 5 11 12 12 12 12 12 12 12 12 12 12 12 12	Total during 5 program years 2	0 # of jobs 0 # of jobs 0 # of jobs 0 # of jobs  Remainder of project life 0 # of jobs 0 # of jobs 0 # of jobs	Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.  Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.
PUBLIC CO- BENEFITS	Public Co-Benefits, Size A Public Co-Benefits, Size B Public Co-Benefits, Size C Calculations & Other Evaluations	Year 1 \$ - \$ - \$ -	Year 2 \$ - \$ - \$ -	Year 3 - \$ - \$ - \$	Year 4  \$ - \$ \$ - \$ \$ - \$	Year 5	USD (Nominal) Cost Unit: per year per year per year	Quantifiable in some cases. If this metric isn't quantifiable, section below.	there is space for any qualitative comments in the Additional Qualitative Considerations

USD (Nominal) Cost Unit: Water Pollution, Size A per year The legislation left the door open to quantify any costs and benefits on water pollution. This might be quantifiable for some of the projects. If this metric Water Pollution, Size B per year isn't quantifiable, there is space for any qualitative comments in the Additional Qualitative Considerations section below WATER POLLUTION Water Pollution, Size C per year Calculations & Other Explanation: erspective Notes: It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and CIP quantification methods. IGIA Participants' Perspective Notes: t many of the elements of the participant perspective, with respect to the direct effect of pilots, will be quantifiable and will rely on the structural values. Add here any information related to some direct effects of pilots on participants that may not be easily quantifiable. For example, increased comfort in a home and am pilots that improve indoor air quality are two examples of benefits that may be difficult to quantify. May improve thermal comfort ffects on Other nd Energy lecurity: Promotes strategic electrification GHG Emissions Notes: An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable. Other Pollution Waste Reduction and Reuse Notes: efinition Policy Notes: NGIA is intended to help the state achieve certain environmental policy goals Reduces fossil gas throughput; increases use of renewable energy

	An innovation plan must include, as applicable, "projected local job impacts
	resulting from implementation of the plan." Utilities should consider both jobs
Definition:	created by proposed pilots and jobs that may be eliminated by proposed pilots.
Economic.	
<u>Development</u>	
Notes:	
Definition:	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.  Benefits.
	Denents.
Public Co-Benefits	
Notes:	
Definition:	
	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.
Market.	
<u>Development</u>	
Notes:	
Definition:	
	The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are realized
Direct Innovation	
Support Notes:	
Definition:	This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA,40 are unlikely to produce significant benefits on their own but are
	intended to lead to future opportunities.
	Opportunity to collaborate with ETA program
Resource	
Scalability and Role	
in a Decarbonized	
System Notes:	
Definition:	18 TO
	While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or
	exceed Minnesota's GHG reduction goals. NGIA pillots should provide valuable information to the Commission as it considers the energy future of the state.
	Strategic electrification necessary part of net zero strategy

/ICF		Click here to go back to the list of all pilots  March 15th 2024 Undate: The assum	ed portion of audit rocinia	inte assumed to install one of the	the incented mass:	ires has been	ducad from 2	NGIA Pilot Profiles Workbook	slower/longer ramp up period to year on the Commercial Carbon	Centure (Clean O2) pilot Undeted input cells
	CNP20 - Small/medium business GHG audit pilot	the state of the s	a portion of audit recipie	ints assumed to install one of t	tne incented measu	ires nas been rei	aucea from 3	% to 2%, given the expectations for a	slower/longer ramp up period to year on the Commercial Carbon	Capture (Clean O2) pilot. Opdated input cells marked
	Pilot Project Code:	CNP20								
	Pilot Project Name: Customer Class/ Sector:	Small/medium business GHG audit pile C&I	31							
	Low-Income Community Benefit?	N								
	Target Area:	Territory-wide								
	Primary Innovative Resource Category:	Energy Efficiency	Se	elect primary Innovation Catego	ory. Others can be lis	sted here:		Strateg	gic electrification, carbon capture	
	<u>Pilot Description:</u> CenterPoint Energy proposes to expand its existing Natural Gas Energ	. Annhusia ("NICEA") CID effection to include identifi	estion of non-CID CUC and							
	Center Fornt Energy proposes to expand its existing Natural das Energ	y Analysis ( NGEA ) CIF offering to include identifi	ation of non-Cir and real	acing opportunities for small and	ia medium businesse	es.				
DESCRIPTION										
	Overview of Program/ Implementation Approach:									
	This NGIA pilot is envisioned as a supplement to the existing CIP NGEA	A audit program, so that all small/medium businesse	participating in the NGEA	also receive additional context	related to GHG emis	ssions and reduct	tion opportuni	ities (and businesses do not need to un	dergo a separate second audit for GHG information). In	
	addition to recognizing 'energy leaders', a portion of NGEA audit recipi audit recipients, those savings would be captured under CIP (not NGIA		pportunities, and receive a	n incentive payment from this p	pilot. If the GHG infor	rmation and/or re	cognition offe	red through this pilot leads to a higher a	adoption rate of NGEA energy efficiency recommendations by	
	addit recipients, those savings would be captured under Cir (not Not)	·/-								
									<u>'</u>	
	Other Comments / Information:									
	Participant levels for pilot size B chosen here align with CIP NGEA audi	t participation planned for the next Triennial, which	verages 240/year (220 in	2024, 240 in 2025, 260 in 2026	B). Pilot A is slightly sr	maller, Pilot C slig	htly higher.			
Y PILOT-SPECIFI	C INPUTS:									
	Pilot Year	Year 1		Year 2	Year 3	Year 4	Year 5	=		
	Calendar Year Participating Units, Size A		2024	2025 192	2026	2027	202		er. A	
	Participating Units, Size B		220	240	260	260	260	O Incremental units added, annual (not cumulat	tive).	
	Participating Units, Size C		264	288	312	312	31:	2		
	Unit of Par	ticipation = Facility receiving GHG Audit				•		<del>-</del>		
	Calculations & Other Explanation:									
		This pilot is designed to supplement C As such participant levels chosen here				2024 240 := 202	ne neo :- non	ie)		
NUMBER OF		As such participant levels chosen here	align with Cir participation	rror next menna, which averag	ges 240/year (220 III	1 2024, 240 111 202	23, 260 111 202	.6)		
PARTICIPANTS	Participant levels aligned with CIP pa	rticipation:	220	240	260	260	260	0		
	In terms of incentives paid out through this pilot the focus is identi	fying customers that would qualify for incentives	from other NGIA pilots, to	be directly incented here ins	tead.	and the second second			(10)	
		Portion of audit recipients implen	enting NGIA measure:	2% assur	me half commercial I	hybrid heating ha	alf CleanO2	tween commercial hybrid heating (pilot	t 18) and commercial carbon capture (pilot 13).	
			М	arch 15th 2024 Update: The as	ssumed portion of au	udit recipients ass	sumed to insta	all one of the incented measures has be	en reduced from 3% to 2%, given the expectations for a slower/longe	r ramp up period to year on the Commercial Carbon Ca
		The implication of this is that a number	of the cells in this tab refe	rence other tabs (taking an aver						
					rage or the per partic	cipant values fror	n pilots #18 ar	nd #13).		
			2							
			2	2	rage of the per partic					
			2	2	2	2	:	2		
		Year 1		2 Year 2	2 Year 3	2 Year 4	Year 5	2 USD (Nominal) Cost Unit:		
	Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost Size B	Year 1	272,944 \$	Year 2 294,318 \$	2 Year 3 315,736	2 Year 4 \$ 308,976 \$	Year 5 360,582	USD (Nominal) Cost Unit:	These incremental utility costs are what will count against the NGIA budge Participant Cost test for the NGIA evaluation criteria. This is the sum of u	tility admin costs to run pilot, any incentive funding to support projec
	Annual Total Utility Incremental Cost, Size A Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C	Year 1   \$   \$   \$   \$   \$   \$   \$   \$   \$		2 Year 2	2 Year 3	2 Year 4 \$ 308,976 \$	Year 5 360,582	2 USD (Nominal) Cost Unit:	These incremental utility costs are what will count against the NGA budge Participant Cost tests for the NGA evaluation criteria. This is the sum of us deployment, and/of the utility's annual revenue requirement for capital in	tility admin costs to run pilot, any incentive funding to support projec
	Annual Total Utility Incremental Cost, Size B	\$ 5 5	272,944 \$ 327,680 \$	Year 2  294,318 \$ 354,030 \$ 413,742 \$	Year 3  315,736 \$ 380,424 \$ 445,112 \$	Year 4 \$ 308,976 \$ \$ 371,584 \$ \$ 434,192 \$	Year 5 360,582 423,190 485,798	USD (Nominal) Cost Unit:  ! total cost per year total cost per year total cost per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of u	tility admin costs to run pilot, any incentive funding to support projec
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C	Year 1 S S S S Year 1	272,944 \$ 327,680 \$ 382,416 \$	Year 2  294,318 \$ 354,030 \$ 413,742 \$  Year 2	Year 3  315,736 \$ 380,424 \$ 445,112 \$  Year 3	Year 4 \$ 308,976 \$ \$ 371,584 \$ \$ 434,192 \$ Year 4	Year 5 360,582 423,190 485,798 Year 5	USD (Nominal) Cost Unit:  ! total cost per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of u deployment, and/or the utility's annual revenue requirement for capital in	tility admin costs to run pilot, any incentive funding to support project restments made on select pilots.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed OSM Cost, Size A	\$ 5 5	272,944   \$ 327,680   \$ 382,416   \$ 205,360   \$	2 Year 2 294,318   \$ 354,030   \$ 413,742   \$ Year 2 220,590   \$	Year 3  315,736   \$ 380,424   \$ 445.112   \$  Year 3  235,864   \$	Year 4 \$ 308,976 \$ 371,584 \$ 434,192 \$  Year 4 \$ 237,424 \$	Year 5 360,582 423,190 485,798 Year 5 289,030	USD (Nominal) Cost Unit:    total Cost per year   total Cost per year   total Cost per year   USD (Nominal) Cost Unit:   btoal Cost per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of u	tility admin costs to run pilot, any incentive funding to support project restments made on select pilots.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed OSAM Cost, Size A Fixed OSAM Cost, Size B	\$ 5 5	272,944 \$ 327,680 \$ 382,416 \$	Year 2  294,318 \$ 354,030 \$ 413,742 \$  Year 2	Year 3  315,736 \$ 380,424 \$ 445,112 \$  Year 3	Year 4 \$ 308,976 \$ 371,584 \$ 434,192 \$  Year 4 \$ 237,424 \$	Year 5 360,582 423,190 485,798 Year 5 289,030 333,750	USD (Nominal) Cost Unit:  I total cost per year I total cost per year I total cost per year USD (Nominal Cost Unit: I total cost per year USD (Nominal Cost Unit: I total cost per year	Participant Cost tests for the NGIA evaluation criteria: This is the sum of u deployment, and/or the utility's annual revenue requirement for capital in Fixed O&M Cost is the result of adding up Total Project Delivery, Advertisk	tility admin costs to run pilot, any incentive funding to support project restments made on select pilots.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed OSM Cost, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944 \$ 327,680 \$ 382,416 \$ 205,360 \$ 243,200 \$	Year 2  294,318   \$ 354,030   \$ 413,742   \$  Year 2  20,590   \$ 261,870   \$	Year 3  315,736 \$ 380,424 \$ 445,112 \$   Year 3  235,864 \$ 280,584 \$ \$ 280,584 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 4 \$ 308,976   \$ 371,584   \$ 434,192   \$ Year 4 \$ 237,424   \$ 282,144   \$	Year 5 360,582 423,190 485,798 Year 5 289,030 333,750	USD (Nominal) Cost Unit:    total Cost per year   total Cost per year   total Cost per year   USD (Nominal) Cost Unit:   btoal Cost per year	Participant Cost tests for the NGIA evaluation criteria: This is the sum of u deployment, and/or the utility's annual revenue requirement for capital in Fixed O&M Cost is the result of adding up Total Project Delivery, Advertisk	tility admin costs to run pilot, any incentive funding to support project restments made on select pilots.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed OSM Cost, Size A Fixed OSM Cost, Size B Fixed OSM Cost, Size C	\$ 5 5	272,944   \$ 327,880   \$ 382,416   \$  205,360   \$ 243,200   \$ 281,040   \$	Year 2  294,318 \$ 354,030 \$ 413,742 \$  Year 2  220,590 \$ 281,870 \$ 303,150 \$  Year 2	Year 3  315.736   \$  380.424   \$  445.112   \$  Year 3  235.864   \$  280.584   \$  325.304   \$  Year 3	Year 4 \$ 308,976   \$ 371,584   \$ \$ 434,192   \$ Year 4 \$ 237,424   \$ 282,144   \$ \$ 282,144   \$ \$ Year 4	Year 5 360,582 423,190 485,798 Year 5 289,030 333,750 378,470 Year 5	2  USD (Nominal) Cost Unit:  I total cost per year  total cost per year  total cost per year  USD (Nominal) Cost Unit:  I total cost per year  total cost per year  total cost per year  USD (Nominal) Cost Unit:  USD (Nominal) Cost Unit:	Participant Cost tests for the NGIA evaluation criteria. This is the sum of undeployment, and/or the utility's annual revenue requirement for capital investment of the sum of t	tility admin costs to run pilot, any incentive funding to support project restments made on select pilots.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size C Total Project Delivery, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,880   \$ 382,416   \$ 205,360   \$ 243,200   \$ 261,040   \$ 200,36	Year 2  294,318   \$ 354,030   \$ 413,742   \$  Year 2  220,590   \$ 261,870   \$ 303,150   \$  Year 2  215,590   \$	Year 3  315,736 \$ 380,424 \$ 445,112 \$  Year 3  235,864 \$ 280,584 \$ 325,304 \$  Year 3  230,864 \$  240,884 \$  240,884 \$ 240,884 \$  240	Year 4 \$ 308,976 \$ 371,584 \$ 434,192 \$  Year 4 \$ 237,424 \$ 228,184 \$   Year 4 \$ 232,424 \$ 232,424 \$	Year 5 360,582 423,190 485,798 Year 5 289,030 333,750 378,470 Year 5 284,030	USD (Nominal) Cost Unit:    total cost per year     total cost per year     total cost per year     total cost per year     USD (Nominal) Cost Unit:     total cost per year     total cost per year     total cost per year     USD (Nominal) Cost Unit:     per year	Participant Cost tests for the NGIA evaluation criteria: This is the sum of u deployment, and/or the utility's annual revenue requirement for capital in Fixed O&M Cost is the result of adding up Total Project Delivery, Advertisk	tility admin costs to run pilot, any incentive funding to support project restments made on select pilots.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Total Project Delivery, Size A Total Project Delivery, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,680   \$ 322,680   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$	Year 2   294,318   \$ 354,030   \$ 413,742   \$   Year 2   220,590   \$ 261,870   \$   Year 2   215,590   \$   256,870	Year 3 315,736   \$ 380,424   \$ 445,112   \$  Year 3 235,864   \$ 220,584   \$ 325,304   \$  Year 3 230,864   \$ 275,584   \$ 275,584   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 4 \$ 308,976   \$ 371,584   \$ 371,584   \$ 434,192   \$   Year 4 \$ 237,424   \$ 282,144   \$ 36,864   \$   Year 4 \$ 232,424   \$ 5 277,144   \$ 27,144   \$ \$ 27,144   \$ \$ \$ 27,144   \$ \$ \$ 27,144   \$ \$ \$ 27,144   \$ \$ \$ 27,144   \$ \$ \$ \$ 277,144   \$ \$ \$ \$ 277,144   \$ \$ \$ \$ \$ 277,144   \$ \$ \$ \$ \$ 277,144   \$ \$ \$ \$ \$ \$ 277,144   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 5 360,582 423,190 485,798 Year 5 289,030 333,750 378,470 Year 5 284,030 328,750	USD (Nominal) Cost Unit:  I total cost per year total cost per year total cost per year USD (Nominal) Cost Unit: I total cost per year total cost per year total cost per year total cost per year USD (Nominal) Cost Unit:	Participant Cost tests for the NGIA evaluation criteria. This is the sum of undeployment, and/or the utility's annual revenue requirement for capital investment of the sum of t	tility admin costs to run pilot, any incentive funding to support project restments made on select pilots.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size C Total Project Delivery, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,880   \$ 382,416   \$ 205,360   \$ 243,200   \$ 261,040   \$ 200,36	Year 2   294,318   \$ 354,030   \$ 413,742   \$   Year 2   220,590   \$ 261,870   \$   Year 2   215,590   \$   256,870	Year 3  315,736 \$ 380,424 \$ 445,112 \$  Year 3  235,864 \$ 280,584 \$ 325,304 \$  Year 3  230,864 \$  240,884 \$  240,884 \$ 240,884 \$  240	Year 4 \$ 308,976   \$ 371,584   \$ 371,584   \$ 434,192   \$   Year 4 \$ 237,424   \$ 282,144   \$ 36,864   \$   Year 4 \$ 232,424   \$ 5 277,144   \$ 27,144   \$ \$ 27,144   \$ \$ \$ 27,144   \$ \$ \$ 27,144   \$ \$ \$ 27,144   \$ \$ \$ 27,144   \$ \$ \$ \$ 277,144   \$ \$ \$ \$ 277,144   \$ \$ \$ \$ \$ 277,144   \$ \$ \$ \$ \$ 277,144   \$ \$ \$ \$ \$ \$ 277,144   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 5 360,582 423,190 485,798 Year 5 289,030 333,750 378,470 Year 5 284,030 328,750	USD (Nominal) Cost Unit:    total cost per year     total cost per year     total cost per year     total cost per year     USD (Nominal) Cost Unit:     total cost per year     total cost per year     total cost per year     USD (Nominal) Cost Unit:     per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of undeployment, and/or the utility's annual revenue requirement for capital investment of the sum of t	tility admin costs to run pilot, any incentive funding to support project restments made on select pilots.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size C	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,680   \$ 382,416   \$ 205,360   \$ 243,200   \$ 281,040   \$ 200,360   \$ 238,200   \$ 276,040   \$ \$ 276,040   \$ 276,	2  Year 2  294,318 \$ 354,030 \$ 413,742 \$  Year 2  220,590 \$ 261,870 \$ 303,150 \$  Year 2  215,590 \$ 256,870 \$ 298,150 \$  Year 2	Year 3 315,736   \$ 380,424   \$ 445,112   \$ Year 3 205,864   \$ 280,584   \$ 325,304   \$  Year 3 275,584   \$ 275,584   \$ 275,584   \$ 275,584   \$ 370,304   \$  Year 3	Year 4 \$ 308.976   \$ 371,584   \$ 434,192   \$ Year 4 \$ 237,424   \$ 237,424   \$ 326,864   \$ Year 4 \$ 232,424   \$ \$ 326,864   \$ Year 4 \$ 232,426   \$ \$ 321,864   \$ Year 4	Year 5 360,582 423,990 485,798 Year 5 289,030 378,470 Year 5 284,030 328,750 373,470 Year 5	USD (Nominal) Cost Unit:  I total cost per year USD (Nominal) Cost Unit: I total cost per year I total cost per year USD (Nominal) Cost Unit: I total cost per year USD (Nominal) Cost Unit: I per year I per year USD (Nominal) Cost Unit: I per year USD (Nominal) Cost Unit: I USD (Nominal) Cost Unit: I USD (Nominal) Cost Unit:	Participant Cost tests for the NGIA evaluation criteria. This is the sum of undeployment, and/or the utility's annual revenue requirement for capital investignment of the state of the sta	illily admin costs to run pilot, any incentive funding to support project estiments made on select pilots.  In general properties of the pilots of the pilot
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size C  Internal Project Delivery, Size C	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,880   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$ 276,040   \$  49,000   \$	Year 2	Year 3 315,736   3 380,424   445,112   3 445,112   3 25,864   3 25,304   3 25,304   3 27,5,584   3 320,304   4 320,304   5 1,984   5 1,9	Year 4 \$ 308,976 \$ 308,976 \$ 371,584 \$ 343,192 \$ Year 4 \$ 328,864 \$ 328,864 \$ 232,424 \$ \$ 232,424 \$ \$ 232,864 \$ \$ 277,144 \$ \$ \$ 32,864 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 5 360,582 423,903 485,798 Year 5 289,030 333,750 378,470 Year 5 284,030 328,750 378,750 Year 5 5,5150	USD (Nominal) Cost Unit:  I total cost per year USD (Nominal) Cost Unit: I total cost per year total cost per year total cost per year USD (Nominal) Cost Unit:   per year   per year   per year   USD (Nominal) Cost Unit:   per year   USD (Nominal) Cost Unit:   per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of undeployment, and/or the utility's annual revenue requirement for capital investment of the sum of t	illily admin costs to run pilot, any incentive funding to support project estiments made on select pilots.  In general properties of the pilots of the pilot
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size C Internal Project Delivery, Size A Internal Project Delivery, Size A Internal Project Delivery, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944 \$ 327,680 \$ 382,416 \$	Year 2  294,318   \$ 354,030   \$ 413,742   \$  Year 2  220,590   \$ 261,870   \$  256,870   \$ 258,150   \$  Year 2  250,470   \$ 50,470   \$	Year 3 315,736   8 380,424   8 445,112   8 Year 3 235,864   8 280,584   3 25,304   8  Year 3 230,864   4 275,584   8 275,584   8 320,304   8 Year 3	Year 4 \$ 308,976   \$ 308,976   \$ 308,976   \$ \$ 434,92   \$ 237,424   \$ 237,424   \$ 268,44   \$ 232,424   \$ 328,64   \$ 232,424   \$ \$ 328,64   \$ \$ 328,64   \$ \$ \$ 53,544   \$ \$ 53,544   \$ \$ 53,544   \$ \$ \$ 53,544   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 5 360,5825 423,890,305 485,798 Year 5 289,030 333,750 Year 5 284,030 328,750 373,470 Year 5 55,150 55,150	USD (Nominal) Cost Unit:  I total cost per year USD (Nominal) Cost Unit: I total cost per year USD (Nominal) Cost Unit: I total cost per year USD (Nominal) Cost Unit: I per year USD (Nominal) Cost Unit: I per year USD (Nominal) Cost Unit: I per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of undeployment, and/or the utility's annual revenue requirement for capital investignment of the state of the sta	illily admin costs to run pilot, any incentive funding to support project estiments made on select pilots.  In general properties of the pilots of the pilot
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size C  Internal Project Delivery, Size C	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,880   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$ 276,040   \$  49,000   \$	Year 2  294,318   \$ 354,030   \$ 413,742   \$  Year 2  220,590   \$ 261,870   \$  256,870   \$ 258,150   \$  Year 2  250,470   \$ 50,470   \$	Year 3 315,736   3 380,424   445,112   3 445,112   3 25,864   3 25,304   3 25,304   3 27,5,584   3 320,304   4 320,304   5 1,984   5 1,9	Year 4 \$ 308,976   \$ 308,976   \$ 308,976   \$ \$ 434,92   \$ 237,424   \$ 237,424   \$ 268,44   \$ 232,424   \$ 328,64   \$ 232,424   \$ \$ 328,64   \$ \$ 328,64   \$ \$ \$ 53,544   \$ \$ 53,544   \$ \$ 53,544   \$ \$ \$ 53,544   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 5 360,5825 423,890,305 485,798 Year 5 289,030 333,750 Year 5 284,030 328,750 373,470 Year 5 55,150 55,150	USD (Nominal) Cost Unit:  I total cost per year USD (Nominal) Cost Unit: I total cost per year total cost per year total cost per year USD (Nominal) Cost Unit:   per year   per year   per year   USD (Nominal) Cost Unit:   per year   USD (Nominal) Cost Unit:   per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of undeployment, and/or the utility's annual revenue requirement for capital investignment of the state of the sta	illily admin costs to run pilot, any incentive funding to support project estiments made on select pilots.  In general properties of the pilots of the pilot
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size C Internal Project Delivery, Size A Internal Project Delivery, Size A Internal Project Delivery, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944 \$ 327,680 \$ 382,416 \$	Year 2  294,318   \$ 354,030   \$ 413,742   \$  Year 2  220,590   \$ 261,870   \$  256,870   \$ 258,150   \$  Year 2  250,470   \$ 50,470   \$	Year 3 315,736   8 380,424   8 445,112   8 Year 3 235,864   8 280,584   3 25,304   8  Year 3 230,864   4 275,584   8 275,584   8 320,304   8 Year 3	2  Ver4  S 308,976 S 308,976 S 371584 S 433192 S  433192 S 433192 S  Ver4  Ver4  S 237,224 S 32,8244 S 32,8244 S 32,8244 S 32,8244 S 32,8244 S 53,544 S 53,544 S 53,544 S	Year 5 360,5822 423,190 485,798 Year 5 289,033,750 378,47C Year 5 284,033 328,750 328,750 55,150 55,150 Year 5	USD (Nominal) Cost Unit:  I total cost per year USD (Nominal) Cost Unit: I total cost per year USD (Nominal) Cost Unit: USD (Nominal) Cost Unit: I total cost per year USD (Nominal) Cost Unit: I per year USD (Nominal) Cost Unit: I per year USD (Nominal) Cost Unit: I per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of undeployment, and/or the utility's annual revenue requirement for capital investignment of the state of the sta	illily admin costs to run pilot, any incentive funding to support project estiments made on select pilots.  In general properties of the pilots of the pilot
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C  Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size B Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size C  Internal Project Delivery, Size A Internal Project Delivery, Size B Internal Project Delivery, Size C  External Project Delivery, Size C	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944 \$ 327,680 \$ 382,416 \$ 205,360 \$ 243,200 \$ 281,040 \$ 276,040 \$ 276,040 \$ 49,000 \$ 49,000 \$ 151,360	Year 2   294,318   \$ 354,030   \$ 413,742   \$	2  Year 3  315,736   \$380,424   \$45,112   \$45,112   \$15,944   \$226,584   \$325,304   \$1275,584   \$320,304   \$15,984	2  Vear 4  \$ 306,976   \$ 371,584   \$ \$ 371,584   \$ \$ \$ 371,584   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year S 30,582 S 402,189 O 485,798 Year S 289,030 333,750 328,750 328,750 328,750 55,150  Year S 55,150 Year S 228,880	USD (Nominal) Cost Unit:    total cost per year     USD (Nominal) Cost Unit:     per year     USD (Nominal) Cost Unit:	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital in the stand of the utility annual revenue requirement for apital in the document of the standard project Delivery. Advertisal Workforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed OSM Cost* categor  External vendor costs would include direct install costs where CNP rembs.	lility admir costs to run pilot any incentive funding to support projectiments made on select pilots.  In any other projections, Utility Administration, Trade Ally incentives, and promotions, Utility Administration, Trade Ally incentives, and any other properties of the properties
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B External Project Delivery, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,880   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$ 276,040   \$  49,000   \$ 49,000   \$ 49,000   \$ 151,360   \$ 189,200   \$	Year 2   294,318   \$   354,030   \$   413,742   \$   \$   20,590   \$   201,870   \$   303,150   \$   \$   256,870   \$   298,150   \$   50,470   \$   50,470   \$   50,470   \$   \$   50,470   \$   \$   \$   \$   \$   \$   \$   \$   \$	Year 3  315,736   3 36,0424   5 445,112   9  Year 3  235,804   5 285,304   3 275,584   6 325,304   8  Year 3	2  Ver4  S 308,976 S 308,976 S 371,584 S 371,584 S 237,024 S 328,024 S 328,024 S 328,044 S 328,044 S 328,044 S 328,044 S 328,044 S 328,044 S 53,544 S 53,544 S 53,544 S 53,544 S 53,544 S 51,880 S 727,144 S 78,880 S 53,544 S 228,000 S 228	Year 5 36,582 402,190 485,798 Year 5 289,033,750 373,470 Year 5 55,150 55,150 Year 5 28,880 Year 5 28,880 70,875 7	USD (Nominal) Cost Unit:  2 total cost per year total cost per year total cost per year USD (Nominal) Cost Unit:  3 total cost per year USD (Nominal) Cost Unit: 3 per year USD (Nominal) Cost Unit: 4 USD (Nominal) Cost Unit: 5 per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital investment of the state of the Utility Tiwed O&M Cost' categor.  CNP staff. These costs are sub-set of the Utility Tiwed O&M Cost' categor.	illity admin costs to run pilot, any incentive funding to support project estiments made on select pilots.  In any of Promotions, Utility Administration, Trade Ally Incentives, and  y above.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C  Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size B Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size C  Internal Project Delivery, Size A Internal Project Delivery, Size B Internal Project Delivery, Size C  External Project Delivery, Size C	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944 \$ 327,680 \$ 382,416 \$ 205,360 \$ 243,200 \$ 281,040 \$ 276,040 \$ 276,040 \$ 49,000 \$ 49,000 \$ 151,360	Year 2   294,318   \$   354,030   \$   413,742   \$   \$   20,590   \$   201,870   \$   303,150   \$   \$   256,870   \$   298,150   \$   50,470   \$   50,470   \$   50,470   \$   \$   50,470   \$   \$   \$   \$   \$   \$   \$   \$   \$	Year 3  315,736   3 36,0424   5 445,112   9  Year 3  235,804   5 285,304   3 275,584   6 325,304   8  Year 3	2  Vear 4  \$ 306,976   \$ 371,584   \$ \$ 371,584   \$ \$ \$ 371,584   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 5 36,582 402,190 485,798 Year 5 289,033,750 373,470 Year 5 55,150 55,150 Year 5 28,880 Year 5 28,880 70,875 7	USD (Nominal) Cost Unit:    total cost per year     USD (Nominal) Cost Unit:     per year     USD (Nominal) Cost Unit:	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital in the stand of the utility annual revenue requirement for apital in the document of the standard project Delivery. Advertisal Workforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed OSM Cost* categor  External vendor costs would include direct install costs where CNP rembs.	lility admir costs to run pilot any incentive funding to support projectiments made on select pilots.  In any other projections, Utility Administration, Trade Ally incentives, and promotions, Utility Administration, Trade Ally incentives, and any other properties of the properties
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B External Project Delivery, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,880   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$ 276,040   \$  49,000   \$ 49,000   \$ 49,000   \$ 151,360   \$ 189,200   \$	Year 2   294,318   \$ 354,030   \$ 413,742   \$	Year 3  316,736   3 380,424   3 445,112    Year 3  235,864   3 220,584   3 230,864   3 275,584   3 320,304   3  Year 3	2  Ver4  S 308,976 S 308,976 S 371,584 S 371,584 S 237,024 S 328,024 S 328,024 S 328,044 S 328,044 S 328,044 S 328,044 S 328,044 S 328,044 S 53,544 S 53,544 S 53,544 S 53,544 S 53,544 S 51,880 S 727,144 S 78,880 S 53,544 S 228,000 S 228	Year 5 36,582 402,190 485,798 Year 5 289,033,750 373,470 Year 5 55,150 55,150 Year 5 28,880 Year 5 28,880 70,875 7	USD (Nominal) Cost Unit:  2 total cost per year total cost per year total cost per year USD (Nominal) Cost Unit:  3 total cost per year USD (Nominal) Cost Unit: 3 per year USD (Nominal) Cost Unit: 4 USD (Nominal) Cost Unit: 5 per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital in the stand of the utility annual revenue requirement for apital in the document of the standard project Delivery. Advertisal Workforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed OSM Cost* categor  External vendor costs would include direct install costs where CNP rembs.	illity admin costs to run pilot, any incentive funding to support project estiments made on select pilots.  In any of Promotions, Utility Administration, Trade Ally Incentives, and  y above.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size C Internal Project Delivery, Size B Internal Project Delivery, Size C  External Project Delivery, Size A External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,680   \$ 322,680   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 276,040   \$  49,000   \$ 49,000   \$  49,000   \$  151,360   \$ 189,200   \$  227,040   \$	Year 2	Year 3 315,736   3 380,424   445,112   3 445,112   3 Year 3 235,864   8 260,584   8 275,584   9 275,584   9 320,304   9 Year 3 51,984   9 51,98	2  Year 4  \$ 308.976 \$ \$ 371.584 \$ \$ \$ 371.584 \$ \$ \$ \$ 45.182 \$ \$ 45.182 \$ 4	Year S 360,5826 423,90 485,788 Year S 289,030 333,750 5284,030 333,750 Year S 55,150 55,150 55,150 273,600 273,600 381,320 Year S	USD (Nominal) Cost Unit:    total cost per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital in the stand of the utility annual revenue requirement for apital in the document of the standard project Delivery. Advertisal Workforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed OSM Cost* categor  External vendor costs would include direct install costs where CNP rembs.	illity admin costs to run pilot, any incentive funding to support project estiments made on select pilots.  In any of Promotions, Utility Administration, Trade Ally Incentives, and  y above.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size C  External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size A Advertising and Promotions, Size A Advertising and Promotions, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,680   \$ 322,680   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$ 276,040   \$  49,000   \$ 49,000   \$ 49,000   \$  151,360   \$ 189,200   \$ 227,040   \$  5,000   \$	Year 2	Year 3 316,736   3 380,424   445,112   3 445,112   3 Year 3 235,864   3 255,304   3 230,864   5 275,584   3 320,304   9 Year 3 178,880   5 1984   5 1985   5 1986   5	Year 4   S   308,976   S   371,584   S   54,912   S   Year 4   S   237,424   S   237,424   S   238,424   S   238,424   S   328,644   S   237,444   S   328,644   S   53,544   S   54,544	Year S 360,5825 423,180 485,788 Year S 289,030 333,750 Year S 284,030 333,470 Year S 5,5150 Year S 228,880 273,600 Year S 228,880 273,600 Year S 28,880 273,600 Year S	USD (Nominal) Cost Unit:  1 total cost per year USD (Nominal) Cost Unit: 1 total cost per year total cost per year total cost per year USD (Nominal) Cost Unit: 1 per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital in the stand of the utility annual revenue requirement for apital in the stand OSM Cost is the result of adding up Total Project Delivery. Advertisal Workforce Development of Market Transformation Cost  Total Internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed OSM Cost* categor.  External vendor costs would include direct install costs where CNP reimbs.  Cost* category above.	lility admir costs to run pilot any incentive funding to support projectiments made on select pilots.  In any other projections, Utility Administration, Trade Ally incentives, and promotions, Utility Administration, Trade Ally incentives, and any other properties of the properties
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size C  Advertising and Promotions, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 337,860   \$ 382,416   \$  205,360   \$ 243,200   \$ 251,040   \$  200,360   \$ 276,040   \$  49,000   \$ 49,000   \$ 49,000   \$ 151,360   \$ 189,200   \$ 227,040   \$	Year 2   294,318   \$   354,030   \$   413,742   \$   \$   220,590   \$   261,870   \$   303,150   \$   \$   256,870   \$	Year 3  316,736   3 360,424   3 445,112    Year 3  235,864   3 230,864   3 275,584   3 320,304   3  Year 3	Year 4   S   308,976   S   371,584   S   54,912   S   Year 4   S   237,424   S   237,424   S   238,424   S   238,424   S   328,644   S   237,444   S   328,644   S   53,544   S   54,544	Year S 360,5825 423,180 485,788 Year S 289,030 333,750 Year S 284,030 333,470 Year S 5,5150 Year S 228,880 273,600 Year S 228,880 273,600 Year S 28,880 273,600 Year S	USD (Nominal) Cost Unit:  2	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital in the stand of the utility annual revenue requirement for apital in the stand OSM Cost is the result of adding up Total Project Delivery. Advertisal Workforce Development of Market Transformation Cost  Total Internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed OSM Cost* categor.  External vendor costs would include direct install costs where CNP reimbs.  Cost* category above.	lility admir costs to run pilot any incentive funding to support projectiments made on select pilots.  In any other projections, Utility Administration, Trade Ally incentives, and promotions, Utility Administration, Trade Ally incentives, and any other properties of the properties
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size C  External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size A Advertising and Promotions, Size A Advertising and Promotions, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,680   \$ 322,680   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$ 276,040   \$  49,000   \$ 49,000   \$ 49,000   \$  151,360   \$ 189,200   \$ 227,040   \$  5,000   \$	Year 2	Year 3 315,736   3 380,424   445,112   3 Year 3 235,864   3 255,304   3 230,864   3 230,864   3 275,584   3 320,304   9 Year 3 178,980   3 178,980   3 223,8600   3 Year 3 Year 3 Year 3 78,980   3 78	Ver4	Year S 360,5825 423,190 465,788 Year S 289,030 333,750 Year S 284,030 333,470 Year S 5,5150 Year S 228,886 373,470 Year S 228,886 373,873,670 Year S 5,5150 Year S 5,5150 Year S	USD (Nominal) Cost Unit:  I total cost per year USD (Nominal) Cost Unit: I total cost per year USD (Nominal) Cost Unit: I total cost per year USD (Nominal) Cost Unit: I per year I per year USD (Nominal) Cost Unit: I per year USD (Nominal) Cost Unit: I per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital in the stand of the utility annual revenue requirement for apital in the stand OSM Cost is the result of adding up Total Project Delivery. Advertisal Workforce Development of Market Transformation Cost  Total Internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed OSM Cost* categor.  External vendor costs would include direct install costs where CNP reimbs.  Cost* category above.	illity admin costs to run pilot, any incentive funding to support project estiments made on select pilots.  In any of Promotions, Utility Administration, Trade Ally Incentives, and  y above.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size B Internal Project Delivery, Size A Internal Project Delivery, Size B Internal Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size C  Advertising and Promotions, Size A Advertising and Promotions, Size B Advertising and Promotions, Size B Advertising and Promotions, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,680   \$ 322,680   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$ 276,040   \$  49,000   \$ 49,000   \$ 49,000   \$  151,360   \$ 189,200   \$ 227,040   \$  5,000   \$	Year 2	Year 3 316,736   3 360,424   445,112   3 445,112   3 Year 3 235,864   3 255,304   3 230,864   5 275,584   3 230,864   5 15,984   5 15,984   5 178,880   3 233,860   3 Year 3 178,880   3 233,860   3 Year 3 Year 3 178,880   3 233,860   3 Year 3 78,880   5 5,984   5 78,880   5 7	Year 4   S   308,976   S   371,584   S   54,912   S   Year 4   S   237,424   S   237,424   S   238,424   S   238,424   S   328,644   S   237,444   S   328,644   S   53,544   S   54,544	Year S 360,5825 423,180 485,788 Year S 289,030 333,750 Year S 284,030 333,470 Year S 5,5150 Year S 228,880 273,600 Year S 228,880 273,600 Year S 28,880 273,600 Year S	USD (Nominal) Cost Unit:  2 (total cost per year total cost per year total cost per year total cost per year  USD (Nominal) Cost Unit: ) total cost per year  USD (Nominal) Cost Unit: ) per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital investigation and the state of the Cost of the Utility Tixed OSM Cost is the result of adding up Total Project Delivery. Advertisis Worlforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed OSM Cost' category  External vendor costs would include direct install costs where CNP reimbu.  Cost' category above.	lility admin costs to run pilot any incentive funding to support projectiments made on select pilots.  In any other pilots and Promotions, Utility Administration, Trade Ally Incentives, and any and Promotions, Utility Administration, Trade Ally Incentives, and yet any other pilots are supported by the pilots and pilots are supported by above.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size C  External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size A Advertising and Promotions, Size A Advertising and Promotions, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,680   \$ 322,680   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$ 276,040   \$  49,000   \$ 49,000   \$ 49,000   \$  151,360   \$ 189,200   \$ 227,040   \$  5,000   \$	Year 2	Year 3 315,736   3 380,424   445,112   3 Year 3 235,864   3 255,304   3 230,864   3 230,864   3 275,584   3 320,304   9 Year 3 178,980   3 178,980   3 223,8600   3 Year 3 Year 3 Year 3 78,980   3 78	Ver4	Year S 360,5825 423,190 465,788 Year S 289,030 333,750 Year S 284,030 333,470 Year S 5,5150 Year S 228,886 373,470 Year S 228,886 373,873,670 Year S 5,5150 Year S 5,5150 Year S	USD (Nominal) Cost Unit:  I total cost per year USD (Nominal) Cost Unit: I total cost per year USD (Nominal) Cost Unit: I total cost per year USD (Nominal) Cost Unit: I per year I per year USD (Nominal) Cost Unit: I per year USD (Nominal) Cost Unit: I per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital in the stand of the utility annual revenue requirement for apital in the stand OSM Cost is the result of adding up Total Project Delivery. Advertisal Workforce Development of Market Transformation Cost  Total Internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed OSM Cost* categor.  External vendor costs would include direct install costs where CNP reimbs.  Cost* category above.	lility admin costs to run pilot any incentive funding to support projectiments made on select pilots.  In any other pilots and Promotions, Utility Administration, Trade Ally Incentives, and any and Promotions, Utility Administration, Trade Ally Incentives, and yet any other pilots are supported by the pilots and pilots are supported by above.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size B Advertising and Promotions, Size A Advertising and Promotions, Size B Advertising and Promotions, Size C  Allocation of General Portfolio Costs, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,680   \$ 322,680   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$ 276,040   \$  49,000   \$ 49,000   \$ 49,000   \$  151,360   \$ 189,200   \$ 227,040   \$  5,000   \$	Year 2	Year 3 315,736   3 380,424   445,112   3 Year 3 235,864   3 255,304   3 230,864   3 230,864   3 275,584   3 320,304   9 Year 3 178,980   3 178,980   3 223,8600   3 Year 3 Year 3 Year 3 78,980   3 78	Ver4	Year S 360,5825 423,190 465,788 Year S 289,030 333,750 Year S 284,030 333,470 Year S 5,5150 Year S 228,886 373,470 Year S 228,886 373,873,670 Year S 5,5150 Year S 5,5150 Year S	USD (Nominal) Cost Unit:  I total cost per year  USD (Nominal) Cost Unit:    per year   per year   per year   per year   per year   per year  USD (Nominal) Cost Unit:   per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital investigation and the state of the Cost of the Utility Tixed OSM Cost is the result of adding up Total Project Delivery. Advertisis Worlforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed OSM Cost' category  External vendor costs would include direct install costs where CNP reimbu.  Cost' category above.	lility admin costs to run pilot any incentive funding to support projectiments made on select pilots.  In any other pilots and Promotions, Utility Administration, Trade Ally Incentives, and any and Promotions, Utility Administration, Trade Ally Incentives, and yet any other pilots are supported by the pilots and pilots are supported by above.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size B Total Project Delivery, Size A Internal Project Delivery, Size A Internal Project Delivery, Size B Internal Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size C Advertising and Promotions, Size B Advertising and Promotions, Size B Advertising and Promotions, Size B Allocation of General Portfolio Costs, Size A Allocation of General Portfolio Costs, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,680   \$ 322,680   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$ 276,040   \$  49,000   \$ 49,000   \$ 49,000   \$  151,360   \$ 189,200   \$ 227,040   \$  5,000   \$	2  Year 2  294,318 \$ 354,030 \$ 413,742 \$  Year 2  220,590 \$ 261,870 \$ 303,150 \$  Year 2  215,590 \$ 296,150 \$  Year 2  165,120 \$ 247,680 \$  Year 2  165,120 \$  Year 2  165,120 \$  Year 2  165,120 \$  Year 2  Year 3  Year 4  Year 5  Year 5  Year 5  Year 9	Year 3  316,736   \$30,424   \$45,112    Year 3  235,864   \$200,584   \$325,304   \$275,594   \$320,584   \$320,584   \$15,984   \$15,	2  Vear 4  \$ 309.976   \$ 309.976   \$ 309.976   \$ 371,584   \$ \$ \$ 371,584   \$ \$ \$ 237,424   \$ \$ 237,424   \$ \$ 328,424   \$ \$ 328,6864   \$ \$ 232,424   \$ \$ 328,6864   \$ \$ 232,424   \$ \$ \$ 328,6864   \$ \$ 328,6864   \$ \$ \$ 328,6864   \$ \$ \$ 328,6864   \$ \$ \$ 328,6864   \$ \$ \$ 328,6864   \$ \$ \$ 328,6864   \$ \$ \$ 328,6864   \$ \$ \$ 328,6864   \$ \$ \$ 328,6864   \$ \$ \$ 328,6864   \$ \$ \$ 328,6864   \$ \$ \$ \$ 328,6864   \$ \$ \$ \$ 328,6864   \$ \$ \$ \$ 328,6864   \$ \$ \$ \$ 328,6864   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 5 3 360,582 4 423,906 423,906 485,798 Year 5 289,030 378,470 Year 5 373,470 Year 5 55,150 55,150 Year 5 228,880 318,320 Year 5 5,000 Year 5 5,000 Year 5	USD (Nominal) Cost Unit:  2 fotal cost per year total cost per year total cost per year total cost per year USD (Nominal) Cost Unit: ) per year  USD (Nominal) Cost Unit: ) per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital investigation and the state of the Cost of the Utility Tixed OSM Cost is the result of adding up Total Project Delivery. Advertisis Worlforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed OSM Cost' category  External vendor costs would include direct install costs where CNP reimbu.  Cost' category above.	lility admin costs to run pilot any incentive funding to support projectiments made on select pilots.  In any other pilots and Promotions, Utility Administration, Trade Ally Incentives, and any and Promotions, Utility Administration, Trade Ally Incentives, and yet any other pilots are supported by the pilots and pilots are supported by above.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size B Advertising and Promotions, Size A Advertising and Promotions, Size B Advertising and Promotions, Size B Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs, Size C	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,880   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$ 276,040   \$  49,000   \$ 49,000   \$ 49,000   \$ 227,040   \$  151,360   \$ 5,000   \$ 5,000   \$	Year 2	Year 3  316,736   \$36,0424   \$45,112   \$76,000   \$36,000   \$1,000	2  Ver4  S 308.976   \$ 308.976   \$ 371584   \$ 5 371584   \$ 431192	Year S 360,5826 423,100 423,10	USD (Nominal) Cost Unit:  I total cost per year  USD (Nominal) Cost Unit:  I per year  I USD (Nominal) Cost Unit:  I per year  I per year  I USD (Nominal) Cost Unit:  I per year  I Der year  I USD (Nominal) Cost Unit:  I per year  I per year  I USD (Nominal) Cost Unit:	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital in the stand C6M Cost is the result of adding up Total Project Delivery. Advertiss Workforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed O6M Cost* category  External vendor costs would include direct install costs where CNP reimbs. Cost* category above.  These costs are sub-set of the Utility Tixed O6M Cost* category above.  Share of portfolio level costs, including plan development costs, regulatory.	lility admin costs to run pilot, any incentive funding to support projecterments made on select pilots.  Ing and Promotions, Utility Administration, Trade Ally Incentives, and any above.  In set the vendor, These costs are sub-set of the Utility Tived O&M  y above.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size B Advertising and Promotions, Size B Advertising and Promotions, Size B Advertising and Promotions, Size B Allocation of General Portfolio Costs, Size A Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs, Size C  Trade Ally Incentives, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,680   \$ 322,680   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$ 276,040   \$  49,000   \$ 49,000   \$ 49,000   \$  151,360   \$ 189,200   \$ 227,040   \$  5,000   \$	2  Year 2  294,318 \$ 354,030 \$ 413,742 \$  Year 2  220,590 \$ 261,870 \$ 303,150 \$  Year 2  215,590 \$ 256,870 \$ 296,150 \$  Year 2  165,120 \$ 247,680 \$  Year 2  Year 2  Year 2  Year 2  Year 3  Year 4  Year 5,000 \$ 5,000 \$ 5,000 \$	Year 3  316,736   \$30,424   \$45,112    Year 3  235,864   \$200,584   \$325,304   \$275,594   \$320,584   \$320,584   \$15,984   \$15,	2  Ver4  S 308.976   \$ 308.976   \$ 371584   \$ 5 371584   \$ 431192   \$ 71584   \$ 1 3	Year 5 3 360,5824 423,905 423,905 485,798 Year 5 289,030 378,470 Year 5 373,470 Year 5 55,150 55,150 Year 5 228,880 318,320 Year 5 5,000 Year 5 5,000 Year 5	USD (Nominal) Cost Unit:  2	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital investigation and the state of the Cost of the Utility Tixed OSM Cost is the result of adding up Total Project Delivery. Advertisis Worlforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed OSM Cost' category  External vendor costs would include direct install costs where CNP reimbu.  Cost' category above.	lility admin costs to run pilot, any incentive funding to support projecterments made on select pilots.  Ing and Promotions, Utility Administration, Trade Ally Incentives, and any above.  In set the vendor, These costs are sub-set of the Utility Tived O&M  y above.
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C Fixed O&M Cost, Size A Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size B Fixed O&M Cost, Size C  Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size B External Project Delivery, Size B Advertising and Promotions, Size A Advertising and Promotions, Size B Advertising and Promotions, Size B Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs, Size C	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272.944   \$ 327.880   \$ 382.416   \$  205.360   \$ 243.200   \$ 243.200   \$ 243.200   \$ 243.200   \$ 243.200   \$ 243.200   \$ 243.200   \$ 276.040   \$  200.360   \$ 238.200   \$ 276.040   \$  49.000   \$ 49.000   \$ 49.000   \$ 5.000   \$ 5.000   \$ 5.000   \$	2  Year 2  294,318 \$ 354,030 \$ 413,742 \$  Year 2  220,590 \$ 261,870 \$ 303,150 \$  Year 2  215,590 \$ 256,870 \$ 296,150 \$  Year 2  165,120 \$ 247,680 \$  Year 2  Year 2  Year 2  Year 2  Year 3  Year 4  Year 5,000 \$ 5,000 \$ 5,000 \$	Year 3  316,736   \$36,0424   \$45,112   \$76,000   \$36,000   \$1,000	2  Vear 4  \$ 309.976   \$ 309.976   \$ 371,584   \$ \$ 309.976   \$ \$ 71,584   \$ \$ \$ 71,584   \$ \$ \$ 237,424   \$ \$ 237,424   \$ \$ 237,424   \$ \$ 232,424   \$ \$ 232,424   \$ \$ 232,826   \$ \$ 232,826   \$ \$ 232,826   \$ \$ 232,826   \$ \$ \$ 232,826   \$ \$ \$ 232,826   \$ \$ \$ 232,826   \$ \$ \$ 232,826   \$ \$ \$ 232,826   \$ \$ \$ 232,826   \$ \$ \$ 232,826   \$ \$ \$ 232,826   \$ \$ 232,826   \$ \$ \$ 232,826   \$ \$ \$ 232,826   \$ \$ \$ 232,826   \$ \$ \$ 232,826   \$ \$ \$ 232,826   \$ \$ \$ \$ 232,826   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 5 3 360,5824 423,905 423,905 485,798 Year 5 289,030 378,470 Year 5 373,470 Year 5 55,150 55,150 Year 5 228,880 318,320 Year 5 5,000 Year 5 5,000 Year 5	USD (Nominal) Cost Unit:  I total cost per year  USD (Nominal) Cost Unit:  I per year  I USD (Nominal) Cost Unit:  I per year  I per year  I USD (Nominal) Cost Unit:  I per year  I Der year  I USD (Nominal) Cost Unit:  I per year  I per year  I USD (Nominal) Cost Unit:	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital in the stand C6M Cost is the result of adding up Total Project Delivery. Advertiss Workforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed O6M Cost* category  External vendor costs would include direct install costs where CNP reimbs. Cost* category above.  These costs are sub-set of the Utility Tixed O6M Cost* category above.  Share of portfolio level costs, including plan development costs, regulatory.	lility admin costs to run pilot any incentive funding to support projectiments made on select pilots.  Ing and Promotions, Uklility Administration, Trade Ally Incentives, and any above.  In set the vendor, These costs are sub-set of the Uklility Fixed O&M  y above.
UTILITY PILOT	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C  Fixed O&M Cost, Size A Fixed O&M Cost, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B External Project Delivery, Size B Advertising and Promotions, Size B Advertising and Promotions, Size B Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs, Size C  Trade Ally Incentives, Size A  Trade Ally Incentives, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,880   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$ 276,040   \$  49,000   \$ 49,000   \$ 49,000   \$  49,000   \$ 5,000   \$  5,000   \$  5,000   \$  -   \$ -   \$	Year 2	Year 3  315,736   \$36,474   \$45,112   \$76,73   \$15,736   \$35,864   \$20,584   \$325,304   \$76,584   \$325,304   \$76,584   \$320,304   \$76,584   \$1984   \$1	Ver4	Year S 360,5826 423,1906 423,1	USD (Nominal) Cost Unit:  I total cost per year  USD (Nominal) Cost Unit:  I total cost per year  USD (Nominal) Cost Unit:  I per year  I Der year  I USD (Nominal) Cost Unit:  I per year  I Per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital in the stand C6M Cost is the result of adding up Total Project Delivery. Advertiss Workforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed O6M Cost* category  External vendor costs would include direct install costs where CNP reimbs. Cost* category above.  These costs are sub-set of the Utility Tixed O6M Cost* category above.  Share of portfolio level costs, including plan development costs, regulatory.	lility admin costs to run pilot, any incentive funding to support projecterments made on select pilots.  Ing and Promotions, Utility Administration, Trade Ally Incentives, and any above.  In set the vendor, These costs are sub-set of the Utility Tived O&M  y above.
UTILITY PILOT COSTS	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C  Fixed O&M Cost, Size A Fixed O&M Cost, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B Internal Project Delivery, Size B External Project Delivery, Size B Advertising and Promotions, Size B Advertising and Promotions, Size B Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs, Size C  Trade Ally Incentives, Size A  Trade Ally Incentives, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	272,944   \$ 327,880   \$ 362,416   \$  205,360   \$ 243,200   \$ 281,040   \$  200,360   \$ 238,200   \$ 276,040   \$  49,000   \$ 49,000   \$ 49,000   \$  49,000   \$ 5,000   \$  5,000   \$  5,000   \$  -   \$ -   \$	2  Year 2  294,318 \$ 354,030 \$ 413,742 \$  Year 2  220,590 \$ 261,870 \$ 261,870 \$ 265,870 \$ 265,870 \$ 265,870 \$ 265,870 \$ 265,870 \$ 265,870 \$ 265,870 \$ 270,87	Year 3  316,736   \$36,0424   \$45,112   \$76,000   \$36,000   \$1,000	2  Vear 4  \$ 309,976   \$ 309,976   \$ 371,584   \$ \$ \$ 309,976   \$ \$ 71,584   \$ \$ \$ 71,584   \$ \$ \$ 71,584   \$ \$ 237,424   \$ \$ 237,424   \$ \$ 232,424   \$ \$ 232,424   \$ \$ \$ 232,424   \$ \$ \$ 232,424   \$ \$ \$ 232,424   \$ \$ \$ 232,424   \$ \$ \$ 232,424   \$ \$ \$ 232,424   \$ \$ \$ 232,424   \$ \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ 233,444   \$ \$ \$ 233,444   \$ 233,444   \$ 233,444   \$ 233,444   \$ 233,444   \$ 233,444   \$ 233,444   \$ 233,444   \$ 233,44	Year 5 3 360,5824 423,905 423,905 485,798 Year 5 289,030 378,470 Year 5 373,470 Year 5 55,150 55,150 Year 5 228,880 318,320 Year 5 5,000 Year 5 5,000 Year 5	USD (Nominal) Cost Unit:  1 total cost per year  1 USD (Nominal) Cost Unit:   per year   per year   per year   per year  1 per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of use deployment, and/or the utility's annual revenue requirement for capital in the stand C6M Cost is the result of adding up Total Project Delivery. Advertiss Workforce Development of Market Transformation Cost  Total internal and external project delivery  CNP staff. These costs are sub-set of the Utility Tixed O6M Cost* category  External vendor costs would include direct install costs where CNP reimbs. Cost* category above.  These costs are sub-set of the Utility Tixed O6M Cost* category above.  Share of portfolio level costs, including plan development costs, regulatory.	lility admin costs to run pilot any incentive funding to support projectiments made on select pilots.  Ing and Promotions, Uklility Administration, Trade Ally Incentives, and any above.  In set the vendor, These costs are sub-set of the Uklility Fixed O&M  y above.

	Workforce Development or Market Transformation Cost, Size B	\$	-	\$ - \$	- :	\$ - \$	-	per year	
	Workforce Development or Market Transformation Cost, Size C	\$	- '	\$ - \$	- 5	\$ - \$	-	per year	
		Year 1		Year 2	Year 3	Year 4	Year 5	1100 (11 1) 0 11-11	
	Other Fixed O&M Cost, Size A	Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Other Fixed O&M Cost, Size B	s		s - s	- 3	\$ - 5		per year	The cold are the series of the cold, and cold, c
	Other Fixed O&M Cost, Size C	\$	-	\$ - \$	- 1	\$ - \$	-	per year	
		-							-
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Total utility capital investment, Size A	\$	-	\$ - \$	- :	\$ - 5	-	per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital
	Total utility capital investment, Size B Total utility capital investment, Size C	\$	-	\$ - \$	- 3	5 - 5	-	per year per year	incestments (shown below).
	Total utility capital investment, Size C	3		5 - 5	-	- 1	-	per year	
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Est. Annual Revenue Requirement for Capital Projects, Size A	\$	- :	\$ - \$	- :		-	per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as
	Est. Annual Revenue Requirement for Capital Projects, Size B	\$	-	\$ - \$	- 5	\$ - \$	-	per year	well as the utility "Fixed O&M Costs" captured above. This revenue requirement is calculated from the magnitude & timing of capital investment
	Est. Annual Revenue Requirement for Capital Projects, Size C	\$	-	\$ - \$	- :	\$ - 5	-	per year	captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
	Est. Total Revenue Requirement for Capital Projects, Size A	Total		USD (Nominal) Cost Unit: per year					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected measure
	Est. Total Revenue Requirement for Capital Projects, Size A  Est. Total Revenue Requirement for Capital Projects. Size B	\$ e		per year per year					life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to calculate any
	Est. Total Revenue Requirement for Capital Projects, Size B	s		per year					of the NGIA evaluation criteria.
	Est Total November Requirement for Suprial Trojecto, Size o			/					
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives, Size A	\$	67,584		79,872		71,552	per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc). Do not include
	Incentives, Size B	\$	84,480	\$ 92,160 \$	99,840		89,440	per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will be used
	Incentives, Size C	\$	101,376	\$ 110,592 \$	119,808	\$ 107,328 \$	107,328	per year	Integration of the state for the MIGA analysis or crass of the state o
		V4		V 2	va	W 4	v	1100 (11 1) 0 11 11	
	Incentives per Participant, Size A	Year 1	384	Year 2 \$ 384 \$	Year 3 384 5	Year 4 \$ 344 \$	Year 5	USD (Nominal) Cost Unit: per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size A	\$	384					per participant per year	incentives per participant is a function of total incentives paid unectify to customers.
	Incentives per Participant, Size C	s	384	\$ 384 \$	384	\$ 344 \$	344	per participant per year	
		<u> </u>						p pp y	4
	Calculations & Other Explanation:								
		Incremental Cost (per Audi	) for NGEA contractor to	\$750					
	M&V - Total Cost for Whole Pilot		450,000		Callet day				
	M&V = Total Cost for Whole Pilot	•	\$50,000 f	lat rate assumed, regardless	or pilot size				
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Total Pilot Upfront Costs, Size A	\$	1,350.00					per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital
	Total Pilot Upfront Costs, Size B	\$	1,350.00	\$ 1,350.00 \$	1,350.00	\$ 1,350.00 \$	1,350.00	per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor
	Total Pilot Upfront Costs, Size C	\$	1,350.00	\$ 1,350.00 \$	1,350.00	\$ 1,350.00 \$	1,350.00	per participant	include utility program admin costs.
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Third Party Funding, Size A	\$	2.50					per participant	If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
TOTAL AND DIRECT	Third Party Funding, Size B Third Party Funding, Size C	\$	2.50	\$ 2.50 \$	2.50	\$ 2.50 \$ \$ 2.50 \$	2.50	per participant	used to calculate any or the work evaluation unteria.
PARTICIPANT PILOT	Description of source of external funding:	IRA, etc	2.50	\$ 2.50 \$	2.50	2.50	2.50	per participant	I
COSTS	bescription of source of external funding.	IRA, etc							
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Direct Participant Pilot Costs, Size A	\$	381.50				484.59	per participant	This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted
	Direct Participant Pilot Costs, Size B	\$	381.50	\$ 396.40 \$	411.87	\$ 467.92 \$	484.59	per participant	from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note 1:
	Direct Participant Pilot Costs, Size C	\$	381.50	\$ 396.40 \$	411.87	\$ 467.92 \$	484.59	per participant	some pilots taking a 'Direct Install' approach may see the utility covering all costs, with no upfront financial contribution from the participant.
	Calculations & Other Explanation:								
	Calculation & Calci Explanation.	Year 1	2.000	Year 2	Year 3	Year 4	Year 5	// //	
	Escalation rate		3.82%	Year 2 3.82%	Year 3 3.82%	Year 4 3.82%		(for each pilot analysis year)	For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
	Escalation rate		3.82%					(for each pilot analysis year)	For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
	Escalation rate		3.82%	3.82%	3.82%	3.82%	3.829		For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
	Escalation rate		3.82%					USD (Nominal) Cost Unit:	
DARTICIDANT NON	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B		3.82%	3.82%	3.82%	3.82%	3.829	USD (Nominal) Cost Unit:  per participant per year of pilot life per participant per year of pilot life	For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation orderis.
PARTICIPANT NON-	Escalation rate		3.82%	3.82%	3.82%	3.82%	3.829	USD (Nominal) Cost Unit:	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the
PARTICIPANT NON- ENERGY COSTS	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C	Year 1 \$ \$ \$ \$ \$ \$	3.82%	3.82%  Year 2 \$ - \$ \$ - \$ \$ - \$	3.82%	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$	3.829  Year 5  5  - 5  -	USD (Nominal) Cost Unit:  per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the
	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:	Year 1 \$ \$ \$ \$ \$ \$ \$ \$	- I	3.82%  Year 2  \$ - \$ \$ - \$ \$ Year 2	3.82%  Year 3  - 3 - 3 - 3 - 3 - 3	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$ Year 4	3.829  Year 5	USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C	Year 1 \$ \$ \$ \$ \$ \$ \$ \$	3.82%	3.82%  Year 2 \$ - \$ \$ - \$ \$ - \$	3.82%	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$	3.829  Year 5	USD (Nominal) Cost Unit:  per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the
	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:	Year 1 \$ \$ \$ \$ \$ \$ \$ \$	- I	3.82%  Year 2  \$ - \$ \$ - \$ \$ Year 2	3.82%  Year 3  - 3 - 3 - 3 - 3 - 3	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$ Year 4	3.829  Year 5	USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:	Year 1 \$ \$ \$ Year 1 Year 1	- I	3.82%  Year 2  \$ - \$ \$ - \$ \$ Year 2	3.82% Year 3 Year 3 3.82%	3.82%  Year 4 \$ - \$ \$ - \$ \$ - \$  Year 4 3.82%	3.829  Year 5	USD (Nominal) Cost Unit:  per participant per year of pilot life (for each pilot analysis year)	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:	Year 1 \$ \$ \$ \$ \$ \$ \$ \$	- I	3.82%   Year 2   \$ - \$ \$ - \$ \$ \$ - \$ \$ \$ \$ - \$ \$ \$ \$ \$	Year 3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	3.82%  Year 4  Year 4  Year 4  Year 4	3.829  Year 5 5 5 - Year 5 7  Year 5 7  Year 5	USD (Nominal) Cost Unit: per participant per year of pilot life [of for each pilot analysis year)  USD (Nominal) Cost Unit:	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
ENERGY COSTS	Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A	Year 1 \$ \$ \$ Year 1 Year 1	3.82%	3.82%  Year 2  \$ - \$ \$ - \$  Year 2  Year 2  Year 2  Year 2  Year 2	Year 3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	3.82% Year 4 \$ - \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ Year 4 \$ 3.82%	3.829  Year 5	USD (Nominal) Cost Unit: per participant per year of pilot life [(for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
ENERGY COSTS  PARTICIPANT NON-	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate	Year 1 \$ \$ \$ Year 1 Year 1	3.82%	3.82%  Year 2  \$ - \$ \$ - \$  Year 2  Year 2  Year 2  Year 2  Year 2	3.82%   Year 3   -	3.82% Year 4 \$ - \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ Year 4 \$ 3.82%	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life [of for each pilot analysis year)  USD (Nominal) Cost Unit:	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON-ENERGY SAVINGS	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A  Participant Non-Energy Savings, Size B  Participant Non-Energy Savings, Size C	Year 1 \$ \$ \$ Year 1 Year 1	3.82%	3.82%  Year 2  \$ - \$ \$ - \$  Year 2  Year 2  Year 2  Year 2  Year 2	3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON-ENERGY SAVINGS	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A  Participant Non-Energy Savings, Size A  Participant Non-Energy Savings, Size B	Year 1 \$ \$ \$ Year 1 Year 1	3.82%	3.82%  Year 2  \$ - \$ \$ - \$  Year 2  Year 2  Year 2  Year 2  Year 2	3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON-ENERGY SAVINGS	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A  Participant Non-Energy Savings, Size B  Participant Non-Energy Savings, Size C	Year 1 \$ \$ \$ Year 1 Year 1	3.82%	3.82%  Year 2  \$ - \$ \$ - \$  Year 2  Year 2  Year 2  Year 2  Year 2	3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON-ENERGY SAVINGS	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A  Participant Non-Energy Savings, Size B  Participant Non-Energy Savings, Size C	Year 1 \$ \$ \$ Year 1 Year 1	3.82%	3.82%  Year 2  \$ - \$ \$ - \$  Year 2  Year 2  Year 2  Year 2  Year 2	3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON- ENERGY SAVINGS	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A  Participant Non-Energy Savings, Size C  Calculations & Other Explanation:	Year 1 \$ \$ \$ Year 1 Year 1	3.82%	S   Year 2   S   -   S   S   -   S   S   -   S   S	3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON-ENERGY SAVINGS	Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size C Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size A	Year 1 \$ \$ \$ Year 1 Year 1	3.82%	Vear 2   S   -   S   S   -   S   S   -   S   S	3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON-ENERGY SAVINGS	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A  Participant Non-Energy Savings, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size A  Average Lifetime for Savings/Pilot Tech, Size A	Year 1 \$ \$ \$ Year 1 Year 1	3.82%	Vear 2   S   -   S   S   -   S   S   -   S   S	3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON-ENERGY SAVINGS	Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size C Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size A	Year 1 \$ \$ \$ Year 1 Year 1	3.82%	Vear 2   S   -   S   S   -   S   S   -   S   S	3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON-ENERGY SAVINGS	Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Toch, Size B Average Lifetime for Savings/Pilot Toch, Size C	Year 1 \$ \$ \$ Year 1 Year 1	3.82%	Vear 2   S   -   S   S   -   S   S   -   S   S	3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON-ENERGY SAVINGS	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A  Participant Non-Energy Savings, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size A  Average Lifetime for Savings/Pilot Tech, Size A	Year 1 \$ \$ \$ Year 1 Year 1	3.82%	Vear 2   S   -   S   S   -   S   S   -   S   S	3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON-ENERGY SAVINGS	Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Toch, Size B Average Lifetime for Savings/Pilot Toch, Size C	Year 1 \$ \$ \$ Year 1 Year 1	3.82%	Vear 2   S   -   S   S   -   S   S   -   S   S	3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON-ENERGY SAVINGS	Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Toch, Size B Average Lifetime for Savings/Pilot Toch, Size C	Year 1 \$ \$ \$ Year 1 Year 1	3.82%	Vear 2   S   -   S   S   -   S   S   -   S   S	3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON- ENERGY SAVINGS	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A  Participant Non-Energy Savings, Size B  Participant Non-Energy Savings, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size A  Average Lifetime for Savings/Pilot Tech, Size B  Average Lifetime for Savings/Pilot Tech, Size C  Calculations & Other Explanation:	Year 1 \$ \$ \$ Year 1 Year 1	3.82% 20   20   20   17.5   17.5   17.5	Vear 2   S   -   S   S   -   S   S   -   S   S	3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON- ENERGY SAVINGS  PILOT LIFE  NATURAL GAS	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A  Participant Non-Energy Savings, Size B  Participant Non-Energy Savings, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size A  Average Lifetime for Savings/Pilot Tech, Size B  Average Lifetime for Savings/Pilot Tech, Size C  Calculations & Other Explanation:  Avg. Dth/Participant Saved, Size A	Year 1 \$ \$ \$ Year 1 Year 1	3.82% 3.82% 20 20 20 20 7.5 7.5 7.5		3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON- ENERGY SAVINGS  PILOT LIFE  NATURAL GAS ENERGY SAVINGS:	Escalation rate  Participant Non-Energy Costs, Size A  Participant Non-Energy Costs, Size B  Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A  Participant Non-Energy Savings, Size B  Participant Non-Energy Savings, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size A  Average Lifetime for Savings/Pilot Tech, Size B  Average Lifetime for Savings/Pilot Tech, Size C  Calculations & Other Explanation:	Year 1 \$ \$ \$ Year 1 Year 1	3.82% 20   20   20   17.5   1	Vear 2   S   -   S   S   -   S   S   -   S   S	3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON- ENERGY SAVINGS  PILOT LIFE  NATURAL GAS ENERGY SAVINGS  AVG. DITY	Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B  Average Lifetime for Savings/Pilot Tech, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size C  Calculations & Other Explanation:	Year 1 \$ \$ \$ Year 1 Year 1	3.82% 20   20   20   17.5   1		3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON- ENERGY SAVINGS  PILOT LIFE  NATURAL GAS ENERGY SAVINGS AVG. DHY PARTICIPANT	Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B  Average Lifetime for Savings/Pilot Tech, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size C  Calculations & Other Explanation:	Year 1 \$ \$ \$ Year 1 Year 1	3.82% 20   20   20   17.5   1		3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON- ENERGY SAVINGS  PILOT LIFE  NATURAL GAS ENERGY SAVINGS  AVG. DITY	Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B  Average Lifetime for Savings/Pilot Tech, Size C  Calculations & Other Explanation:  Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C	Year 1 \$ \$ \$ Year 1 Year 1	3.82% 20   20   20   17.5   1		3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT NON- ENERGY SAVINGS  PILOT LIFE  NATURAL GAS ENERGY SAVINGS AVG. Dth/ PARTICIPANT	Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C  Calculations & Other Explanation:  Average Lifetime for Savings/Pilot Tech, Size A Average Lifetime for Savings/Pilot Tech, Size B  Average Lifetime for Savings/Pilot Tech, Size C  Calculations & Other Explanation:  Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C	Year 1 \$ \$ \$ Year 1 Year 1	3.82% 20   20   20   17.5   1		3.82%   Year 3   -	3.82%  Year 4  \$ - \$ \$ - \$ \$ - \$  Year 4  3.82%  Year 4  \$ 20 \$ \$ 20 \$	3.829  Year 5  S  -  Year 5  3.829  Year 5  200  200	USD (Nominal) Cost Unit: per participant per year of pilot life (for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life per participant per year of pilot life per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United

vg. Non-Gas Fuel Units/Part, Saved, Size A 26 kWh/Participant Units are kWh; could technically be other non-NG. Avg. Non-Gas Fuel Units/Part. Saved will be used in the Participant Cost tests for the NGIA evaluation criteria. Avg. Non-Gas Fuel Units/Part, Saved, Size B 26 kWh/Participant Avg. Non-Gas Fuel Units/Part. Saved, Size C kWh/Participant Avg. Additional Non-Gas Fuel Units/Part.Used, Size A 116 kWh/Participant Avg. Additional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria. Avg. Additional Non-Gas Fuel Units/Part.Used, Size B 116 kWh/Participant Avg. Additional Non-Gas Fuel Units/Part.Used, Size C 16 kWh/Participant Calculations & Other Explanation: AVG. NON-GAS Year 1 otal Annual Dth Saved, Size A 506 Natural gas energy savings that result from multiplying savings per participant times the total number of new participants in a given year Total Annual Dth Saved, Size B OTAL ANNUAL D otal Annual Dth Saved, Size C SAVED Calculations & Other Explanation: Grid Mix Scenario Select one of the listed grid mix scenarios taking into account that: Dilities shall use electric-utility-specific generation mix information for the renewable natural gas facility when it is reasonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from GRID MIX SCENARI Calculations & Other Explanation: ifecycle GHG Intensity, Size A Year 1 Year 2 Year 3 Year 4 Year 5 Utilities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas Innovation Act innovation (NGM) plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuse used in the resource's fletcycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGM plans. kg CO2e/participant Expected 26.6 kg CO2e/participant kg CO2e/participant Lifecycle GHG Intensity, Size B Year 1 Year 2 Year 3 Year 4 kg CO2e/participant Expected 26.6 kg CO2e/participant kg CO2e/participant LIFECYCLE GHG INTENSITY BY
PROJECT SIZE ifecycle GHG Intensity, Size C Year 1 Year 2 Year 3 Year 4 kg CO2e/participant 26.6 kg CO2e/participant Expected kg CO2e/participant Calculations & Other Explanation: GHG Intensit Ising this calculation structure is optional; if modifications are needed, please use the hidden rows or raise with project leads. Size A Size B Size C kg CO2e/D ow Scenario xpected Scenario High Scenario eak Reduction Factor 1% The estimated average annual effect of the project on system peak. It is estimated to be 1% for energy efficiency pilots. The method for other innovative resources should be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the Utility Cost and Non Participant Cost Calculations & Other Explanation: PEAK REDUCTION Year 2 USD (Nominal) Cost Unit: The CIP methodology is used for energy efficiency. However, the value for other innovative resources should be considered in the context of Variable O&M Cost, Applies to all project sizes 0.04 per Dth The CUP methodology is used for energy efficiency, however, the value for other involved resources blood be considered in the context of specific utility represents for exemptic accounts in general-pulpagem and RNO may not decrease GOM cost as they also need to be transported to customers on the distribution system. Variable COM will be used in the Utility Cost and Non Participant Cost seas for the ROLA Annual Excellence Cost and the Representation of the ROLA Annual Excellence Cost seasons are considered in the Energy Information Administration's 2023 Annual Excellence COST through 2027 to all users in the West North Central Region as estimated in the Energy Information Administration's 2023 Annual Excellence Cost and Cos Calculations & Other Explanation: Year 1 Year 2 Year 3 Year 4 Year 5 -5.250% (for each pilot analysis year) Escalation rate n/a -5.250% -5.250% VARIABLE O&M

The state of the control of the cont												
Section Sectio					The CIP methodology is used	for all racourous of	ther then etretanic a	lactrification. The method for etretanic electrification	un should be considered in the context	t of enecific utility pilot pro	none afe	
Marie   Mari	COST		\$	44.I4 per MWh	equal to the average of daily	real-time final mark	eet locational margin	al prices (LMP) at the Minnesota Hub from January	1, 2022 to December 31, 2022 using d	sta from Midwest Independi	o-out-out-out-out-out-out-out-out-out-ou	
Column   C		······ <del></del> ·· <del></del> ··		8.22%	The CIP methodology is used factors reported by Minneso	l for all resources of ta Power, Xcel Energ	her than strategic ei gy, and Otter Tail Pou	ectrification. The method for strategic electrification wee's reported 2021 transmission and distribution lo	in should be considered in the context ses factors and weighting by the utiliti	t of specific utäty pälot proj es' 2017-2019 average retaä	pocals. In the most recent CIP, Staff used the weighted average of the mo d cales	st recent loss
Column   C												
Service (Controller) See A Service (Controller)	OTHER QUANTITATIV	E CRITERIA:										
March   Control   Contro					7							
### 1			\$		Commission's approved dolla	r per ton environm	ental cost values usi	ng escalation rate to adjust by observed inflation be	etween 2014 and 2021. Stakeholders e	xpressed a preference for a	allowing utilities to select different externality values for pilots targeting sp	pecific
The Secretary Control of Charles (SEA A Control), SEA A Control, SEA A SEA A CONTROL SEA A	OTHER NON-GHG		s		Utilities can make deviations	such as these in th	eir NGIA plans if they	can provide justification for the change. Instead of	alue rather than the metropolitan frin requiring the use of median metropo	ge value. Similarly, a project litan fringe values for all nor	t targeting a low-income population might use a high value rather than the n-GHG pollutants, as shown in Table 1 of the Commission's January 3, 2018	median. 3 Order in
NE Fort Jah Charles, Sim A   Need Text Jah Charles, Sim A	POLLUTANTS	Other Non-GHG Pollutants, Size C	\$	0.37 per Dth	Docket No. E0999/CI-14-643	utilities may use th	e value most applica	ble for the pilot or measure.				
Met   Control		Calculations & Other Explanation:										
Met   Control												
Met Direct and Contention, Size 2   2   2   2   2   2   2   2   2   2		Net Direct Job Creation Size A	Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life	# of jobs	Utilities should consider both jobs created by proposed pilots a	and inhs that
Net indirect 240 Creation, Size A Not in		Net Direct Job Creation, Size B		2 2	2 2	2		2	11 5	# of jobs	may be eliminated by proposed pilots.	
Net before a dia Creation, Size A Net be		Net Direct Job Creation, Size C		2 3	2	3		3	13	# of jobs		
Net indirect Job Creation, Size C			Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	7 2		Utilities should consider both jobs created by proposed pilots a	and jobs that
NET JOS CREATION Not Induced Job Creation, Size A Not Induced Job				1 1	1 1	1		2			may be eliminated by proposed pilots.	
Net Induced Abo Creation, Size A Net Induced About Creation reports the net Induced About Creation reports in the Additional Creation reports in the Ad			Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years		# 01 JOBS		
Net Induced Job Creation, Size A  Merch 15th 2004 Update hole that Net Job Creation impacts here not been updated with the current changes to this plot.  Adductions & Other Explanation  Joh numbers are estimated as Full Time Equivalents (FE) and are rounded off.  Year 1  Year 2  Year 3  Year 4  Year 5  USO (Nominal) Creat Units  Analise Co-Bestulis, Size A  Analise Co-Bestulis Analise and a special for any qualitative comments in the Additional Qualitative Comments in the Addit				2 1	1 1	1		1				
March 19th 2024 Updates Note than Net Job Creation impacts have not been updated with the current changes to this plot.    Calculations & Chher Explanation:   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivalents (FTE) and are rounded off.   Sob numbers are estimated as Full Time Equivale				1 2	2 2	2		2	9 4	# of jobs		
Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.    PUBLIC COPERATION   FURL COPERATION   F			March 15th 2024 Update: Note that Net Job Cree	ation impacts have not been updated with	the current changes to the	nis pilot.	-	-				
PUBLIC CO- BENEFITS  PUBLIC CO		Calculations & Other Explanation:										
PUBLIC CO-Benefits, Size A Public Co-Benefits, Size A Public Co-Benefits, Size A Public Co-Benefits, Size A Public Co-Benefits, Size B Public Co-Benefits, Size B Public Co-Benefits, Size C  Calculations & Other Explanation:  Year 1 Year 2 Year 3 Year 4 Year 5 Year 4 Year 5 Year 4 Year 5 Year 4 Year 5 Year 6 Year 9 Water Pollution, Size A Water Pollution, Size B Water Pollution, Size B Water Pollution, Size C  Calculations & Other Explanation:  Year 1 Year 2 Year 3 Year 4 Year 5 Year 3 Year 4 Year 5 Year 5 Year 9 Ye		Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.										
PUBLIC CO-BENEFITS   Public Co-Benefits, Size B   S			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:				
Public Co-Benefits, Size C  Calculations & Other Explanation:    Year 1   Year 2   Year 3   Year 4   Year 5   USD (Nominal) Cost Unit:			\$	- \$ -	\$ -	\$ -	\$ -			nis metric isn't quantifiable,	there is space for any qualitative comments in the Additional Qualitative	
## Calculations & Other Explanation:    Year   Year	PUBLIC CO-		\$	- \$ -	\$ -	\$ -	\$ -		Considerations section below.			
Water Pollution, Size A Water Pollution, Size B Water Pollution, Size B Water Pollution, Size C Calculations & Other Explanation:  Year 1 Year 2 Year 3 Year 4 Year 5 Year 4 Year 5 Year 5 Year 4 Year 5 Year 5 Year 5 Year 6 Year 5 Year 6 Year 7 Year 7 Year 9 Year 7 Year 9 Year	BENEFITS	Table 66 Balletta, 6126 6	•	· ·	*	•	•	per year				
Water Pollution, Size A S S S S S S S S S S S S S S S S S S S		Calculations & Other Explanation:										
Water Pollution, Size A Water Pollution, Size A Water Pollution, Size A Water Pollution, Size B Water Pollution, Size B S S S S S S S S S S S S S S S S S S S			Year 1	Year 2	Year 3	Year 4	Year 5					
WATER POLLUTION Water Pollution, Size C  S - S - S - Per year  Calculations & Other Explanation:			\$	- \$ -	\$ -	\$ -	\$ -					ojects. If this
Calculations & Other Explanation:	WATER BOLLLITION	Water Pollution, Size B Water Pollution, Size C	\$	- \$ -	\$ -	S -	S -		metric isn't quantifiable, there i	s space for any qualitative o	comments in the Additional Qualitative Considerations section below.	
	WATER POLLOTION			•				F /				
ADDITIONAL QUALITATIVE CONSIDERATIONS:		Calculations & Other Explanation:										
	ADDITIONAL QUALITA	ATIVE CONSIDERATIONS:										
	ADDITIONAL QUALITY	RITE CONSIDERATIONS:										

It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and CIP quantification methods.

NGIA Participants'	
Perspective Notes: Definition:	
Definition:	It is expected that many of the elements of the participant prespective, with respect to the direct effect of pilots on participant prespective, with respect to the direct effect of pilots on participants that may not be easily quantifiable. For example, increased comfort in a home and health benefits from pilots that improve indoor are quality are two examples of benefits that may be difficult to quantifiable.
	May assist MN businesses in achieving GHG goals
NGIA	
Customers'	
Nonparticipating Customers' Perspective Notes:	
	As with the utility perspective, the direct effects of pilot programs on non-
Definition:	As with the utility perspective, the direct effects of pilot programs on non- participating customers should be quantified in most cases and can be heavily informed by structural values.
Effects on Other Energy Systems and Energy	
and Energy	
Security: Definition:	
Definition:	notes the commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utilities and its customers. Measures like stratagic electrification specifically require as utilities and the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utilities and its customers. Measures like stratagic electrification specifically require as a utilities and the Commission to consider how innovative resources fit into the energy system with a broader perspective.
	NGIA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utility and its customers. Measures like strategic electrification specifically require gas utilities and the Commission to avoid negative effects on the electric system. Further, the NGIA empowers the Commission to consider a wide variety of "costs and benefits that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel markets.
	Reduces overall energy consumption
GHG Emissions	
Notes:	
Definition:	An innovation plan must include the total lifecycle GHG emissions that the utility projects will be received vision of through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion of
	any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.
Other Pollution	
Notes: Definition:	
	include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.
Waste Reduction	
and Reuse Notes:	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes
Definition:	reduction of water use.
Policy Notes:	
	NGIA is intended to help the state achieve certain environmental policy goals
Definition:	including geologic gas throughput reduction and increased use of renewable
Deminion.	resources. Reduces fossil gas throughput
Net Job Creation	
Notes:	
	An innovation plan must include, as applicable, "projected local job impacts
Definition:	An innovation plan must include as applicable, "projected local job impacts resulting from implementation of the plan." Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.
Economic Development	
<u>Development</u> Notes:	
Notes: Definition:	The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional
	economic benefits.
Public Co-Benefits	
Notes:	
Definition:	
	There may be public benefits for certain pilots. For example, the NGM is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.

May help MN businesses appeal to customers interested in sustainability

# Direct Innovation Support Notes: Definition:

This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA-40 are unlikely to produce significant benefits on their own but are intended to lead to future opportunities.

Opportunity for customers to learn about novel options for reducing GHGs from their systems

# Resource Scalability and Role in a Decarbonized System Notes:

While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.

N	/
1	CF

Click here to go back to the list of all pilots NGIA Pilot Profiles Workbook CNP21 - Residential Gas Heat Pump

Pilot Project Code: CNP21 ilot Project Name Customer Class/ Sector: ow-Income Community Benefit? arget Area: Territory-wide Primary Innovative Resource Category: **Energy Efficiency** 

Select primary Innovation Category. Others can be listed here:

### Pilot Description:

CenterPoint Energy proposes to fund the deployment and testing of 'combi' space and water heating gas heat pump systems in Minnesota homes to evaluate the technology's performance.

### DESCRIPTION

#### Overview of Program/ Implementation Approach:

For the different pilot sizes envisioned here, CenterPoint would fund the deployment and testing of between 6 and 20 'combi' space and water heating gas heat pump systems in Minnesota homes, to evaluate the technology's performance. An initial phase would include market research and analysis to prioritize which gas heat pump units should be included in the field testing. Outreach would be conducted to recruit CenterPoint customers to participate in the pilot, and contractors would be engaged to train them to install and maintain the heat pumps, with support from equipment manufacturers. The installations would e metered and trial data analyzed to develop reporting metrics that would better inform the opportunity for gas heat pumps to be part of future CIP or NGIA programs.

#### Other Comments / Information:

minimum of 10 participants (size B) would be ideal to develop more robust performance data.

### EY PILOT-SPECIFIC INPUTS:

Pilot Year Year 1 Year 2 Year 3 Year 4 Year 5 Calendar Year 2028 Participating Units, Size A mental units added, annual (not cumulative). Participating Units, Size B Participating Units, Size C Unit of Participation = Gas Heat Pumps Installed

Year 1

Calculations & Other Explanation:

Annual Total Utility Incremental Cost, Size A	
Annual Total Utility Incremental Cost, Size B	
Annual Total Utility Incremental Cost Size C	

ixed O&M Cost, Size A ixed O&M Cost, Size B ixed O&M Cost, Size C

Total Project Delivery, Size A otal Project Delivery, Size B otal Project Delivery, Size C

nternal Project Delivery, Size A nternal Project Delivery, Size B nternal Project Delivery, Size C

External Project Delivery, Size A xternal Project Delivery, Size B xternal Project Delivery, Size C

Advertising and Promotions, Size A Advertising and Promotions, Size B dvertising and Promotions, Size C

Year 1	Year 2	Year 3	Year 4		USD (Nominal) Cost Unit:	
\$ 19,800 \$	127,594 \$	127,897 \$	60,709 \$	11,030	total cost per year	These incremental utility costs are what will count against the NGIA budget cap for this measure and will be used in the Utility Cost, and Non
\$ 36,000 \$	214,130 \$	214,779 \$	72,947 \$	23,636		Participant Cost tests for the NGIA evaluation criteria. This is the sum of utility admin costs to run pilot, any incentive funding to support project
\$ 41,000 \$	394,130 \$	394,779 \$	72,947 \$	23,636	total cost per year	deployment, and/or the utility's annual revenue requirement for capital investments made on select pilots.

Year 5 USD (Nominal) Cost Unit: Year 1 Year 2 Year 3 19,800 \$ 127,897 \$ 60,709 S 11,030 total cost per year 23,636 total cost per year total cost per year

Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit: 19,800 125,094 \$ 125,397 \$ 60,709 \$ 11,030 per year Total internal and external project delivery 211,630 \$ 72,947 \$ 23,636 per year 36,000 \$ 212,279 \$ 41,000 \$ 391,630 72,947 \$ 23,636 per year

Year 4

Year 1 USD (Nominal) Cost Unit: Year 5 10,709 \$ 9.800 \$ 10.094 \$ 10.397 \$ 11,030 per year CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" category above. 23,636 per year 21,000 \$ 21630 \$ 22 279 \$ 22.947 \$ 21.000 \$ 21.630 \$ 22.279 \$ 22.947 \$ 23.636 per year

USD (Nominal) Cost Unit: Year 1 Year 2 Year 3 Year 4 50,000 Year 5 10,000 \$ 115,000 per year 15,000 \$ 190,000 190,000 \$ 50,000 per year 20,000 \$ 370,000 370,000 \$ 50,000 per year

Year 1 USD (Nominal) Cost Unit: per year 2,500 \$ 2,500 \$ per year 2,500 \$ 2,500 \$ - \$ per year Year 3

Year 2

External vendor costs would include direct install costs where CNP reimburses the vendor. These costs are sub-set of the Utility "Fixed O&M

xed Q&M Cost is the result of adding up Total Project Delivery, Advertising and Promotions, Utility Administration, Trade Ally Incentives, and Yorkforce Development of Market Transformation Cost

These costs are sub-set of the Utility "Fixed O&M Cost" category above.

Cost" category above.

Year 5 USD (Nominal) Cost Unit:

	Allocation of General Portfolio Costs, Size A							per year	Share of portfolio level costs, including plan development costs, regulatory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size B							per year	
	Allocation of General Portfolio Costs, Size C							per year	
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Trade Ally Incentives, Size A	\$	- \$	-				per year	If applicable, include here the annual amount of trade ally incentives (e.g. midstream program)
	Trade Ally Incentives, Size B	\$	- \$	-	\$ -	\$ -	\$ -	per year	
	Trade Ally Incentives, Size C	\$	- \$	-	\$ -	\$ -	\$ -	per year	
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Workforce Development or Market Transformation Cost, Size A	\$	- \$	-			\$ -	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Workforce Development or Market Transformation Cost, Size B	\$	- \$	-	\$ -	\$ -	\$ -	per year	
UTILITY PILOT	Workforce Development or Market Transformation Cost, Size C	\$	- \$	-	\$ -	\$ -	\$ -	per year	
COSTS		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Other Fixed O&M Cost, Size A	\$	- \$	-	\$ -	\$ -	\$ -	per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Other Fixed O&M Cost, Size B	\$	- \$	-	\$ -	\$ -	\$ -	per year	
	Other Fixed O&M Cost, Size C	\$	- \$	-	\$ -	\$ -	\$ -	per year	
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Total utility capital investment, Size A	\$	- \$	-	\$ -	\$ -	\$ -	per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the
	Total utility capital investment, Size B	\$	- \$	-	\$ -	\$ -	\$ -	per year	incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital
	Total utility capital investment, Size C	\$	- \$	-	\$ -	\$ -	\$ -	per year	investments (shown below).
		Year 1		Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Est. Annual Revenue Requirement for Capital Projects, Size A	\$	- \$	Teal 2 -	\$ -	\$ -	\$ .	per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as
	Est. Annual Revenue Requirement for Capital Projects, Size B	\$	- \$	÷	\$ -	\$ -	\$ -	per year	well as the utility "Fixed O&M Costs" captured above. This revenue requirement is calculated from the magnitude & timing of capital investment
	Est. Annual Revenue Requirement for Capital Projects, Size C	\$	- \$	-	\$ -	\$ -	\$ -	per year	captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
		Total	uen /	(Name) = 1\ O = 4   1 = 14					
	Est. Total Revenue Requirement for Capital Projects, Size A	\$	- per ye	(Nominal) Cost Unit:					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected
	Est. Total Revenue Requirement for Capital Projects, Size B	\$	- per ye						measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to
	Est. Total Revenue Requirement for Capital Projects, Size C	\$	- per ye	ear					calculate any of the NGIA evaluation criteria.
		Year 1		Year 2	Year 3	W4	Year 5	USD (Nominal) Cost Unit:	
	Incentives, Size A	tear 1	- \$	rear 2	tear s	Year 4	¢ .	per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc.). Do not include
	Incentives, Size B	\$	- \$	-	\$ -	\$ -	\$ -	per year	here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct
	Incentives, Size C	\$	- \$	-	\$ -	\$ -	\$	per year	install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will be used to the Participant Cost tests for the MCIA auditation critaria
		Year 1						USD (Nominal) Cost Unit:	
	Incentives per Participant. Size A	tear 1	-   \$	Year 2	Year 3	Year 4	Year 5	per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size A	\$	- \$	-	\$ -	\$ -	\$ -	per participant per year	interview per paradipant is a function of coar interview paid directly to dissortions.
	Incentives per Participant, Size C	\$	- \$	-	\$ -	\$ -	\$ -	per participant per year	
	Calculations & Other Explanation:								
		Year 1		Year 2	Year 3	Year 4	Year 5		
	Project Mgmt - Size A	\$	10,000 \$	10,000		\$ -	\$	-	
	Project Mgmt - Size B	\$	15,000 \$	15,000	\$ 15,000	\$ -	\$		
	Project Mgmt - Size C Equipment Installation - Size A	\$ e	20,000 \$	20,000 90.000	\$ 20,000 \$ 90,000	\$ -	\$		
		Š	- \$	150.000	\$ 150,000	\$ -	\$		
	Equipment Installation - Size C	\$	- \$	300,000		\$ -	\$		
	M&V data collection - Size A	\$	-	\$15,000			9		
	M&V data collection - Size B			ψιο,οοο	\$15,000	\$ -	\$	3	
			-	\$25,000	\$25,000	\$ - \$ -	\$	-	
	M&V data collection - Size C Analysis and Reporting (All Sizes)	\$	- - - \$	\$25,000 \$50,000	\$15,000 \$25,000 \$50,000 \$	\$ - \$ - \$ 50,000	\$ \$		
	M&V data collection - Size C Analysis and Reporting (All Sizes)	\$	- - - \$	\$25,000	\$25,000	\$ -	\$ \$	- - -	
	M&V data collection – Size C Analysis and Reporting (All Sizes)	\$ \$	- - - \$	\$25,000 \$50,000 -	\$25,000 \$50,000 \$ -	\$ -	\$ \$ \$ \$		
	Analysis and Reporting (All Sizes)	\$	+ •	\$25,000 \$50,000 - Year 2	\$25,000 \$50,000 \$ -	\$ - \$50,000 Year 4	\$ \$ \$ \$ Year 5	USD (Nominal) Cost Unit:	This represents the total engineers and installation costs for rechnologies implemented as part of this pilot (specifically non-stility capital
	M&V data collection - Size C Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B	\$ \$	30,000 \$	\$25,000 \$50,000 -	\$25,000 \$50,000 \$ -	\$ - \$50,000 Year 4	\$ \$ \$ \$ Year 5	USD (Nominal) Cost Unit: 10 per participant 10 per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor
	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A	\$ \$	30,000 \$	\$25,000 \$50,000 - Year 2	\$25,000 \$50,000 \$ - Year 3	\$ - \$50,000 Year 4 \$ 30,000	\$ \$ \$ \$ Year 5	O per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A  Total Pilot Upfront Costs, Size B	\$ Year 1 \$ \$ \$ \$	30,000 \$ 30,000 \$	\$25,000 \$50,000 - Year 2 30,000 30,000 30,000	\$25,000 \$50,000 \$ Year 3 \$ 30,000 \$ 30,000 \$ 30,000	\$ - \$50,000 Year 4 \$ 30,000 \$ 30,000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	per participant per participant per participant per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor
	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C	\$ \$	30,000 \$ 30,000 \$	\$25,000 \$50,000 - Year 2 30,000 30,000	\$25,000 \$50,000 \$	\$ - \$50,000 Year 4 \$ 30,000 \$ 30,000	\$ \$ \$ \$ Year 5	00 per participant 10 per participant 10 per participant 10 per participant 10 USD (Nominal) Cost Unit:	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A	\$ Year 1 \$ \$ \$ \$	30,000 \$ 30,000 \$	\$25,000 \$50,000 - Year 2 30,000 30,000 30,000	\$25,000 \$50,000 \$ Year 3 \$ 30,000 \$ 30,000 \$ 30,000	\$ - \$50,000 Year 4 \$ 30,000 \$ 30,000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	per participant per participant per participant per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor
	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B	\$ \$ Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	30,000 \$ 30,000 \$	\$25,000 \$50,000 - Year 2 30,000 30,000 30,000	\$25,000 \$50,000 \$ Year 3 \$ 30,000 \$ 30,000 \$ 30,000	\$ - \$50,000 Year 4 \$ 30,000 \$ 30,000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	O per participant O per participant O per participant O per participant USD (Nominal) Cost Unit: per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's
TOTAL AND DIRECT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B	\$ Year 1 \$ \$ \$ \$	30,000 \$ 30,000 \$	\$25,000 \$50,000 - Year 2 30,000 30,000 30,000	\$25,000 \$50,000 \$ Year 3 \$ 30,000 \$ 30,000 \$ 30,000	\$ - \$50,000 Year 4 \$ 30,000 \$ 30,000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	00 per participant 10 per participant 10 per participant 10 per participant 10 USD (Nominal) Cost Unit: 10 per participant 11 per participant 12 per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B	\$ \$ Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	30,000 \$ 30,000 \$	\$25,000 \$50,000 \$50,000 30,000 30,000 Year 2	\$25,000 \$50,000 \$ - Year 3 \$ 30,000 \$ 30,000 Year 3 \$ - \$ - \$ -	\$ 50,000  Year 4 \$ 30,000 \$ 30,000  Year 4 \$ - \$ -	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's
	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B	\$ \$ Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	30,000 \$ 30,000 \$	\$25,000 \$50,000 - Year 2 30,000 30,000 30,000	\$25,000 \$50,000 \$ Year 3 \$ 30,000 \$ 30,000 \$ 30,000	\$ - \$50,000 Year 4 \$ 30,000 \$ 30,000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size A	\$ \$ Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	30,000 \$ 30,000 \$	\$25,000 \$50,000 \$50,000 30,000 30,000 Year 2	\$25,000 \$50,000 \$ - Year 3 \$ 30,000 \$ 30,000 Year 3 \$ - \$ - \$ -	\$ 50,000  Year 4 \$ 30,000 \$ 30,000  Year 4 \$ - \$ -	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A	\$ \$ Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	30,000 \$ 30,000 \$	\$25,000 \$50,000 \$50,000 30,000 30,000 Year 2	\$25,000 \$50,000 \$ - Year 3 \$ 30,000 \$ 30,000 Year 3 \$ - \$ - \$ -	\$ 50,000  Year 4 \$ 30,000 \$ 30,000  Year 4 \$ - \$ -	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C	\$	30,000 \$ 30,000 \$	\$25,000 \$50,000 \$0,000 30,000 30,000 Year 2 	\$25,000 \$50,000 \$	\$ - \$50,000 Year 4 \$ 30,000 \$ 30,000 Year 4 \$ - \$ - \$ - \$ - \$ -	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	O  per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size C  Description of source of external funding:  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size A  Direct Participant Pilot Costs, Size A	\$ \$ Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	30,000 \$ 30,000 \$	\$25,000 \$50,000 \$50,000 30,000 30,000 Year 2	\$25,000 \$50,000 \$ - Year 3 \$ 30,000 \$ 30,000 Year 3 \$ - \$ - \$ -	\$ 50,000  Year 4 \$ 30,000 \$ 30,000  Year 4 \$ - \$ -	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	O  per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value where utility incentives are subtracted from the total uptront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note that all approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Calculations & Other Explanation:	\$	30,000 \$ 30,000 \$ 30,000 \$  - \$ - \$ - \$ - \$ - \$ - \$	\$25,000 \$50,000 Year 2 30,000 30,000 Year 2 - - Year 2	\$25,000 \$50,000 \$	\$ - \$50,000  Year 4 \$ 30,000 \$ 30,000  Year 4 \$ - \$ - \$ \$ - \$ \$ - \$ Year 4	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Calculations & Other Explanation:	\$ Year 1 \$ \$ Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	30,000 \$ 30,000 \$ 30,000 \$ - \$ - \$ - \$ - \$ - \$ - \$ 3.82%	\$25,000 \$50,000 \$0,000 30,000 30,000 Year 2 	\$25,000 \$50,000 \$ - Year 3 \$ 30,000 \$ 30,000 \$ 30,000 \$ 3- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	\$ - \$50,000  Year 4 \$ 30,000 \$ 30,000  Year 4 \$ - \$ - \$ \$ - \$ \$ - \$ Year 4	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (ag. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Risc costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note it some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Calculations & Other Explanation:	\$ Year 1 \$ \$ Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	30,000 \$ 30,000 \$ 30,000 \$  - \$ - \$ - \$ - \$ - \$ - \$	\$25,000 \$50,000 \$0,000 30,000 30,000 Year 2 	\$25,000 \$50,000 \$	\$ - \$50,000  Year 4 \$ 30,000 \$ 30,000  Year 4 \$ - \$ - \$ \$ - \$ \$ - \$ Year 4	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (ag. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Risc costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note it some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Calculations & Other Explanation:	\$	30,000 \$ 30,000 \$ 30,000 \$ - \$ - \$ - \$ - \$ - \$ - \$ 3.82%	\$25,000 \$50,000 	\$25,000 \$50,000 \$	\$ - \$50,000  Year 4 \$ 30,000 \$ 30,000 Year 4 \$ - \$ - \$ - \$ - \$ - \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (ag. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Risc costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note it some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation rate	\$ Year 1 \$ \$ Year 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	30,000 \$ 30,000 \$ 30,000 \$ - \$ - \$ - \$ - \$ - \$ - \$ 3.82%	\$25,000 \$50,000 \$0,000 30,000 30,000 Year 2 	\$25,000 \$50,000 \$ - Year 3 \$ 30,000 \$ 30,000 \$ 30,000 \$ 3- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	\$ - \$50,000  Year 4 \$ 30,000 \$ 30,000  Year 4 \$ - \$ - \$ \$ - \$ \$ - \$ Year 4	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	O per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note to participant the properties taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index evaluable from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B  Calculations & Other Explanation:  Escalation rate	\$	30,000 \$ 30,000 \$ 30,000 \$ - \$ - \$ - \$ - \$ - \$ - \$ 3.82%	\$25,000 \$50,000 	\$25,000 \$50,000 \$	\$ - \$50,000  Year 4 \$ 30,000 \$ 30,000 Year 4 \$ - \$ - \$ - \$ - \$ - \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in percentage change in the "all items" consumer price i
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A	\$	30,000 \$ 30,000 \$ 30,000 \$ - \$ - \$ - \$ - \$ - \$ - \$ 3.82%	\$25,000 \$50,000 	\$25,000 \$50,000 \$	\$ - \$50,000  Year 4 \$ 30,000 \$ 30,000 Year 4 \$ - \$ - \$ - \$ - \$ - \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Oper participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note to participant the properties taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index evaluable from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	30,000 \$ 30,000 \$ 30,000 \$ - \$ - \$ - \$ - \$ - \$ - \$ 3.82%	\$25,000 \$50,000  Year 2 30,000 30,000 Year 2 Year 2  Year 2  Year 2  Year 2  Year 2  Year 2  Year 2  Year 2  Year 2	\$25,000 \$50,000 \$	\$ - \$50,000  Year 4 \$ 30,000 \$ 30,000 \$ 30,000 Year 4 \$ - \$ - \$ \$ - \$  Year 4 \$ 3,82%	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note I some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available from the United States Bureau of Labor Statistics, as reported in percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in percentage change in the "all items" consumer price i
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C  Calculations & Other Explanation:	\$	30,000 \$ 30,000 \$ 30,000 \$  - \$ - \$ - \$ - \$ 3.82%    ation (including space	\$25,000 \$50,000  Year 2  30,000 30,000  Year 2	\$25,000 \$50,000 \$ 50,000 \$ 30,000 \$ 30,000 \$ 30,000 Year 3 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ - \$50,000  Year 4 \$ 30,000 \$ 30,000 \$ 30,000  Year 5 \$ - \$ - \$ - \$ - \$ - \$ - \$  Year 4 \$ - \$ - \$ \$ - \$  Year 4 \$ - \$  Year 4 \$ - \$  Year 4 \$ - \$  Year 5 \$ - \$  Year 6 \$ - \$  Year 7  Year 7	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Oper participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (a.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Riot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note 1 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation or iteria.
PARTICIPANT PILOT	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	30,000 \$ 30,000 \$ 30,000 \$ - \$ - \$ - \$ - \$ - \$ - \$ 3.82%	\$25,000 \$50,000  Year 2 30,000 30,000 Year 2 Year 2  Year 2  Year 2  Year 2  Year 2  Year 2  Year 2  Year 2  Year 2	\$25,000 \$50,000 \$	\$ - \$50,000  Year 4 \$ 30,000 \$ 30,000 \$ 30,000 Year 4 \$ - \$ - \$ \$ - \$  Year 4 \$ 3,82%	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Oper participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note to some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C  Calculations & Other Explanation:	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	30,000 \$ 30,000 \$ 30,000 \$  - \$ - \$ - \$ - \$ 3.82%    ation (including space	\$25,000 \$50,000  Year 2  30,000 30,000  Year 2	\$25,000 \$50,000 \$ 50,000 \$ 30,000 \$ 30,000 \$ 30,000 Year 3 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ - \$50,000  Year 4 \$ 30,000 \$ 30,000 \$ 30,000  Year 5 \$ - \$ - \$ - \$ - \$ - \$ - \$  Year 4 \$ - \$ - \$ \$ - \$  Year 4 \$ - \$  Year 4 \$ - \$  Year 5 \$ - \$  Year 6 \$ - \$  Year 7 \$  Year 7 \$  Year 8 \$ - \$  Year 9 \$  Ye	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Oper participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (a.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Riot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note 1 some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation or iteria.
PARTICIPANT PILOT COSTS	Analysis and Reporting (All Sizes)  Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C  Calculations & Other Explanation:  Escalation rate  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size C  Calculations & Other Explanation:	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	30,000 \$ 30,000 \$ 30,000 \$  - \$ - \$ - \$ - \$ 3.82%    ation (including space	\$25,000 \$50,000  Year 2  30,000 30,000  Year 2	\$25,000 \$50,000 \$ 50,000 \$ 30,000 \$ 30,000 \$ 30,000 Year 3 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ - \$50,000  Year 4 \$ 30,000 \$ 30,000 \$ 30,000  Year 5 \$ - \$ - \$ - \$ - \$ - \$ - \$  Year 4 \$ - \$ - \$ \$ - \$  Year 4 \$ - \$  Year 4 \$ - \$  Year 5 \$ - \$  Year 6 \$ - \$  Year 7 \$  Year 7 \$  Year 8 \$ - \$  Year 9 \$  Ye	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Oper participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note to some pilots taking a Direct Install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most recently available data.  This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.

PARTICIPANT NON- ENERGY SAVINGS	retricipant Non-Energy Savings, Size A  Year 1  Year 2  Year 3  Year 4  Year 5  Year 5  Year 5  Year 5  Year 1  Year 7  Year 5  Year 7  Year 7  Year 7  Year 9  Year 1  Year 9  Year 9
PILOT LIFE	verage Lifetime for Savings/Pilot Tech, Size A  lip years verage Lifetime for Savings/Pilot Tech, Size B  lip years verage Lifetime for Savings/Pilot Tech, Size C  lip years verage Lifetime for Savings/Pilot Tech, Size C  lip years verage Lifetime for Savings/Pilot Tech, Size C  lip years
NATURAL GAS ENERGY SAVINGS: AVG. Dth/ PARTICIPANT SAVED	ye, Dth/Participant Saved, Size A  (y, Dth/Participant Saved, Size B  (y, Dth/Participant Saved, Size C  (x) Saved Size B  (x) Saved Size Size Size Size Size Size Size Size
AVG. NON-GAS FUEL UNITS/ PART.	vg, Non-Gas Fuel Units/Part. Saved, Size A  QOO KWh/Participant Vg, Non-Gas Fuel Units/Part. Saved, Size B  QOO KWh/Participant Vg, Additional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.  Questional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria.
TOTAL ANNUAL Dth SAVED	Year 1   Year 2   Year 3   Year 4   Year 5
GRID MIX SCENARIO	Select one of the listed grid mix scenarios taking into account that    Description   Select one of the listed grid mix scenarios taking into account that
	recycle GHG Intensity, Size A  Year 1  Year 2  Year 3  Year 4  Year 5  Year 4  Year 5  Year 5  Year 5  Year 6  Year 9
LIFECYCLE GHG INTENSITY BY PROJECT SIZE	Year

	High					kg CO2e/participant		
	Calculations & Other Explanation:							
		GHG I Size A	Intensity Size B	Size C	Ising this calculation struct	are is optional; if modifications are needed, please use the h	idden rows or raise with project leads.	
			O2e/Dth	Size C				
	Low Scenario Expected Scenario							
	High Scenario							
		<u> </u>						
OTHER PILOT-SPECIF	FIC PARAMETERS (formerly 'General Parameters' in CIP Calculator):							
	Peak Reduction Factor	, , , , , , , , , , , , , , , , , , ,	1% The estimated average annual e	effect of the project on system	peak. It is estimated to be i	% for energy efficiency pilots. The method for other innovati	ve resources should be considered in the context of specific utility pro	oposals. Peak Reduction Factor will be used in the Utility Cost and Non Participant
PEAK REDUCTION FACTOR	Calculations & Other Explanation:	,	Cost tests for the NGIA evaluati	ion criteria.				
TACTOR	Calculations & Other Explanation.							
		Values now linked directly back to planning assumptions to	ab (possible given the combination	n of formerly separate Exhibit	P and N into a single file)			
		Year 1	Year 2	Year 3		Year 5 USD (Nominal) Cost Unit:	The Old marked start is used to see a Western Harris	the value for other innovative resources should be considered in the context of
VARIABLE O&M	Variable O&M Cost, Applies to all project sizes	\$ 0.05	5 \$ 0.04	\$ 0.04	\$ 0.04 \$	0.04 per Dth	specific utility proposals. For example, resources like power-t	to-hydrogen and RNG may not decrease O&M costs as they also need to be
	Calculations & Other Explanation:	Year 1	Year 2	Year 3	Year 4	Year 5	evaluation criteria. Note, to calculate this metric, you can mak	e OSM will be used in the Utility Cost and Non Participant Cost tests for the NGIA ke one cost estimate for year I and then use the escalation rate to estimate each
	Escalation rate	a n/a	-5.2509	-5.250%	-5.250%	-5.250% (for each pilot analysis year)	Annual Escalation Rate calculated using the average percent of	change in the price of natural gas between 2023 through 2027 to all users in the
			USD (Nominal) Cost Unit:					
NON-GAS FUEL COST	Non-Gas (i.e., Electric) Fuel Cost	\$ 44.1	4 per MWh	The CIP methodology is used equal to the average of daily	I for all resources other tha real-time final market loca	n strategic electrification. The method for strategic electrific tional marginal prices (LMP) at the Minnesota Hub from Janu	ation should be considered in the context of specific utility pilot propo ary 1, 2022 to December 31, 2022 using data from Midwest Independe	osals. ent System Operator (MISO)
COST	Calculations & Other Explanation:							
NON-GAS FUEL	Non-Gas Fuel Loss Factor	8.22	2%	The CIP methodology is used loss factors reported by Min	for all resources other than nesota Power, Xcel Energy,	n strategic electrification. The method for strategic electrific and Otter Tail Power's reported 2021 transmission and disti	ation should be considered in the context of specific utility pilot proper ribution loss factors and weighting by the utilities' 2017-2019 average i	osals. In the most recent CIP, Staff used the weighted average of the most recent retail sales
LOSS FACTOR	Calculations & Other Explanation:							
OTHER QUANTITATIV	E CRITERIA:							
			USD Cost Unit:	Generally no change from C	P mathodology The factor	e calculated using the final environmental onet values anno	ward hy Minnaenta Public Utilitiae Commission (Commission). The facts	ors are reported in 2021 dollars in Table 2 below. which were calculated by inflating
	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants. Size B	\$ 0.3	per Dth per Dth	the Commission's approved	dollar per ton environments	al cost values using escalation rate to adjust by observed in	flation between 2014 and 2021. Stakeholders expressed a preference for	or allowing utilities to select different externality values for pilots targeting specific argeting a low-income population might use a high value rather than the median.
OTHER NON-GHG	Other Non-GHG Pollutants, Size C		per Dth	Utilities can make deviations	such as these in their NGI/	k plans if they can provide justification for the change. Instead most applicable for the pilot or measure.	ad of requiring the use of median metropolitan fringe values for all non-	-GHG pollutants, as shown in Table 1 of the Commission's January 3, 2018 Order in
	Calculations & Other Explanation:							
	Net Direct Job Creation, Size A	Year 1	Year 2	Year 3	Year 4	Year 5 Total during 5 program years	Remainder of project life  2	Utilities should consider both jobs created by proposed pilots and jobs that
	Net Direct Job Creation, Size B		0	1 1	0	0	2 0 # of jobs	may be eliminated by proposed pilots.
	Net Direct Job Creation, Size C			2	0	0	4 0 # of jobs	
		Year 1	Year 2	Year 3	Year 4	Year 5 Total during 5 program years	Remainder of project life	
	Net Indirect Job Creation, Size A		0 (	0 0	0	0	1 0 # of jobs	Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.
	Net Indirect Job Creation, Size B Net Indirect Job Creation, Size C		0	1 1	0	0	1 0 # of jobs 2 0 # of jobs	may be eliminated by proposed pilots.
			•		•	•	·	
NET JOB CREATION		Year 1	Year 2	Year 3	Year 4	Year 5 Total during 5 program years	Remainder of project life	
	Net Induced Job Creation, Size A Net Induced Job Creation, Size A		0	1 1	0	0	1 0 # of jobs 2 0 # of jobs	
	Net Induced Job Creation, Size A		0	1 1	0	0	2 1 # of jobs	
	Calculations & Other Explanation:							
	Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.							
	Public Co-Benefits, Size A	Year 1	Year 2	Year 3	Year 4	Year 5 USD (Nominal) Cost Unit:		
	Public Co-Benefits, Size B	\$	- \$ -	\$ -	s - s	- per year - per year	Quantifiable in some cases. If this metric isn't quantifiable, the Considerations section below.	ere is space for any qualitative comments in the Additional Qualitative
PUBLIC CO- BENEFITS	Public Co-Benefits, Size C	\$	- \$ -	\$ -	\$ - \$	- per year		
	Calculations & Other Explanation:							

	Water Pollution, Size A	Year 1 -	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:		on water pollution. This might be quantifiable for some of the projects. If
WATER POLLUTION	Water Pollution, Size B Water Pollution, Size C	\$ -	\$ - \$ -	\$ - \$ -	\$ -	\$ - \$ -	per year per year	this metric isn't quantifiable, there is space for any qualitative comm	ents in the Additional Qualitative Considerations section below.
	Calculations & Other Explanation:								
ADDITIONAL QUALIT	ATIVE CONSIDERATIONS:								
NGIA Utility Perspective Notes:									
	It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and CIP quantification methods.								
Definition:	CIP quantification methods.								
NGIA Participants' Perspective Notes: Definition:	It is expected that many of the elements of the participant perspective, with resp	ant to the direct offset of pilote will be questifiable a						he seek a satisfiable for example increased comfort	
Definition.	it is expected that many or the elements of the participant perspective, with respin a home and health benefits from pilots that improve indoor air quality are two e	ect to the alrect effect of pilots, will be quantifiable a examples of benefits that may be difficult to quantify.	nd will rely on the structural t	/alues. Add nere any l	nrormation relate	a to some airect	errects or pilots on participants that may not	be easily quantifiable. For example, increased comfort	
<u>NGIA</u>									
Nonparticipating Customers'									
Perspective Notes:	As with the utility perspective, the direct effects of pilot programs on non- participating customers should be quantified in most cases and can be heavily								
Definition:	participating customers should be quantified in most cases and can be heavily informed by structural values.								
Effects on Other Energy Systems									
and Energy Security: Definition:									
Definition:	NGIA invites the Commission to consider how innovative resources fit into the en the NGIA empowers the Commission to consider a wide variety of "costs and ber	ergy system with a broader perspective than effects	on the gas utility and its cus	tomers. Measures like	strategic electrif	ication specifica	lly require gas utilities and the Commission to	avoid negative effects on the electric system. Further,	
	the NGIA empowers the Commission to consider a wide variety of "costs and ber Reduces fossil gas throughput; may reduce electric build out needs	nefits that may be expected under a plan," one of whi	ch is a reduction of reliance o	on imported resource	s and national fue	el markets.			
GHG Emissions Notes:									
Definition:	An innovation plan must include the total lifecycle GHG emissions that the utility is discussion of any environmental justice effects of the pilot related to GHG emissi	orojects will be reduced or avoided through implement ions, these may not be quantifiable.	nting the plan. This benefit sh	ould be generally qua	antifiable using the	e Commission-a	oproved GHG accounting framework and GHG	G externality values. Note that this row also calls for	
	Use refrigerants with lower global warming potential								
Other Pollution									
Other Pollution Notes: Definition:									
	Include any additional non-GHG environmental costs and benefits. For example, e	iffects on water pollution that may not be quantifiable	e, or specific air quality benef	its to a low income co	ommunity. Note ti	hat this also calls	tor discussion of any environmental justice e	offects of the pilot related to non-GHG pollution.	
Waste Reduction and Reuse Notes:	Wests reduction value and assembling finantian are goals of the NOVA Includes								
Definition:	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes reduction of water use.								
Policy Notes:	NGIA is intended to help the state achieve certain environmental policy goals								
	Nations intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable resources.								
	Reduces fossil gas throughput								
Net Job Creation Notes:									

	An innovation plan must include, as applicable, "projected local job impacts
	resulting from implementation of the plan." Utilities should consider both jobs
Definition:	created by proposed pilots and jobs that may be eliminated by proposed pilots.
<u>Economic</u>	
Development.	
Notes: Definition:	
	The Commission must make a finding that the innovation plan 'promotes local economic development.' Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.
	Social on the Control of Control
Public Co-Benefits	
Notes: Definition:	
	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.
Market	
Development	
Notes:	
Definition:	
	The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are realized
<u>Direct Innovation</u>	
Support Notes:	The state of the s
	This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA 40 are unlikely to produce significant benefits on their own but are intended to lead to future opportunities.
	Om pot rein to the ETA program  Opportunity to Albertate with ETA program
Resource	
Scalability and Role	
in a Decarbonized	
System Notes:	
Definition:	While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures
	needed to meet or exceed Minnesota's GHG reduction goals. NGA pilots should provide valuable information to the Commission as it considers the energy future of the state.

⇒I∠ ZICF		Click here to go back to the list of all pilots		NGIA Pilot Profiles Workbook	
*ICF	CNP22 - Gas Heat Pump for Commercial Buildings Pilot Project Code:	CNP22	T		
	Pilot Project Name:	Gas Heat Pump for Commercial Buildings			
	Customer Class/ Sector:	C&I			
	Low-Income Community Benefit? Target Area:	Territory-wide	-		
	Primary Innovative Resource Category:	Energy Efficiency	Select primary Innovation Category. Others can be listed here:		
	Pilot Description:				
	CenterPoint Energy proposes to fund the deployment and testing of engine-di	riven and/or absorption gas heat pump systems in t	Minnesota commercial buildings, to evaluate the technologies' performance.		
DESCRIPTION					
	Overview of Program/ Implementation Approach:				
	As the technology is new to market and is not yet considered cost effective for		ions with equipment monitoring, energy savings documentation, understanding of costs and benefits and a	resulting case study. Some sites could be available for site walk-throughs so that contractors, design firms and	
	other technology specifiers can gain first-hand experience and exposure to th	e technology.			
		starter portfolio. That is a market transformation init	tiative that will work to accelerate adoption of emerging technologies. This NGIA pilot field demonstration we	ould complement the strategy and planning work that will be completed within the ETA program, and could be	
	completed in coordination with ETA.				
	Other Comments / Information:				
	Target candidates for the pilot will depend on the size of pilot ultimately select	ed, but for the base proposal (three customer insta	illations) the initial plan would be to target a multifamily building with gas boiler heat, a small commercial wit	h gas boiler heat, and a recreational facility with high hot water usage.	
KEY PILOT-SPECIFIC	INPLITS:				
NETTIEST STESHIS					
	Pilot Year Calendar Year	Year 1 2024	Year 2         Year 3         Year 4         Year 5           I         2025         2026         2027         202	18	
	Participating Units, Size A	C		Incremental units added, annual (not cumulative).	
NUMBER OF PARTICIPANTS	Participating Units, Size B Participating Units, Size C	C	3 3 0	<u>0</u>	
TARTION ARTO	Unit of Participation	= Number of Facilities installing gas heat pumps		<u>4</u>	
	Calculations & Other Explanation:				
		Year 1	Year 2 Year 3 Year 4 Year 5	USD (Nominal) Cost Unit:	
	Annual Total Utility Incremental Cost, Size A	\$ 108,500	\$ 461,630 \$ 109,779 \$ 22,947 \$ 23,636	total cost per year  These incremental utility costs are what will count against the NGIA budget cap for this measure and will count against the NGIA budget cap for this measure and will count against the NGIA budget cap for this measure and will count against the NGIA budget cap for this measure and will count against the NGIA budget cap for this measure and will count against the NGIA budget cap for this measure and will count against the NGIA budget cap for this measure and will count against the NGIA budget cap for this measure and will count against the NGIA budget cap for this measure and will count against the NGIA budget cap for this measure and will count against the NGIA budget cap for this measure and will count against the NGIA budget cap for this measure and will count against the NGIA budget cap for this measure and will count against the NGIA budget cap for this measure and will be considered as the normal count against the NGIA budget cap for this measure and will be considered as the normal count against the NGIA budget cap for this measure and the normal count against the NGIA budget cap for this measure against the normal cap for the n	
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C	\$ 154,333 \$ 221,000	\$ 507,463 \$ 508,112 \$ 22,947 \$ 23,636 \$ 574,130 \$ 924,779 \$ 22,947 \$ 23,636	total cost per year  Cost, and Non Participant Cost tests for the NGIA evaluation criteria. This is the sum of utility admin co total cost per year  incentive funding to support project deployment, and/or the utility's annual revenue requirement for cap	
			5, 465 (	select pilots.	
	Fixed O&M Cost. Size A	Year 1 108,500	Year 2 Year 3 Year 4 Year 5  \$ 461,630 \$ 109,779 \$ 22,947 \$ 23,636	USD (Nominal) Cost Unit:    total cost per year   Fixed O&M Cost is the result of adding up Total Project Delivery, Advertising and Promotions, Utility Ad	dministration. Trade Ally
	Fixed O&M Cost, Size B	\$ 154,333	\$ 507,463 \$ 508,112 \$ 22,947 \$ 23,636	total cost per year Incentives, and Workforce Development of Market Transformation Cost	,
	Fixed O&M Cost, Size C	\$ 221,000	\$ 574,130 \$ 924,779 \$ 22,947 \$ 23,636	total cost per year	
		Year 1	Year 2 Year 3 Year 4 Year 5	USD (Nominal) Cost Unit:	
	Total Project Delivery, Size A Total Project Delivery, Size B	\$ 108,500 \$ 154,333	\$ 459,130 \$ 109,779 \$ 22,947 \$ 23,636 \$ 504,963 \$ 505,612 \$ 22,947 \$ 23,636	per year Total internal and external project delivery per year	
	Total Project Delivery, Size C	\$ 221,000		per year	
		Year 1	Year 2 Year 3 Year 4 Year 5	USD (Nominal) Cost Unit:	
	Internal Project Delivery, Size A	\$ 21,000	\$ 21,630 \$ 22,279 \$ 22,947 \$ 23,636	Der year CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" category above.	
	Internal Project Delivery, Size B Internal Project Delivery, Size C	\$ 21,000 \$ 21,000	\$ 21,630 \$ 22,279 \$ 22,947 \$ 23,636 \$ 21,630 \$ 22,279 \$ 22,947 \$ 23,636	per year	
	Internal Froject Delivery, 3126 C				
	External Project Delivery, Size A	Year 1 87,500	Year 2         Year 3         Year 4         Year 5           \$ 437.500 \$ 87.500 \$ - \$ -         - \$ -	USD (Nominal) Cost Unit:  per year  External vendor costs would include direct install costs where CNP reimburses the vendor. These costs	s are sub-set of the Utilit
	External Project Delivery, Size B	\$ 133,333	\$ 483,333 \$ 483,333 \$ - \$ -	per year "Fixed O&M Cost" category above.	THE SEE SEE OF THE COME
	External Project Delivery, Size C	\$ 200,000	\$ 550,000 \$ 900,000 \$ - \$ -	per year	
		Year 1	Year 2 Year 3 Year 4 Year 5	USD (Nominal) Cost Unit:	
	Advertising and Promotions, Size A Advertising and Promotions, Size B		\$ 2,500 \$ - \$ - \$ - \$ 2,500 \$ 2,500 \$ - \$	per year These costs are sub-set of the Utility "Fixed OSM Cost" category above.  per year	
	Advertising and Promotions, Size C			per year per year	
		Year 1	Year 2 Year 3 Year 4 Year 5	USD (Nominal) Cost Unit:	
	Allocation of General Portfolio Costs, Size A	Teal 1	16017 16017	per year Share of portfolio level costs, including plan development costs, regulatory costs, and general portfolio	costs
	Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs. Size C			per year per year	
	Allocation of General Fortiono Costs, Size C				
	Trade Ally Incentives. Size A	Year 1	Year 2 Year 3 Year 4 Year 5	USD (Nominal) Cost Unit:    per year   If applicable, include here the annual amount of trade ally incentives (e.g. midstream program)	
	Trade Ally Incentives, Size B	\$ -		per year	
	Trade Ally Incentives, Size C	\$ -	\$ - \$ - \$ -	per year	
UTILITY PILOT		Year 1	Year 2 Year 3 Year 4 Year 5	USD (Nominal) Cost Unit:	
COSTS	Workforce Development or Market Transformation Cost, Size A	\$ -	\$ - \$ - \$ -	per year These costs are sub-set of the Utility "Fixed O&M Cost" category above.	
	Workforce Development or Market Transformation Cost, Size B Workforce Development or Market Transformation Cost, Size C	\$ -	\$ -   \$ -	per year per year	
		V4			
	Other Fixed O&M Cost, Size A	Year 1	Year 2 Year 3 Year 4 Year 5  \$ - \$ - \$ - \$	USD (Nominal) Cost Unit:  per year  These costs are sub-set of the Utility "Fixed O&M Cost" category above.	
	Other Fixed O&M Cost, Size B	\$ -	\$ - \$ - \$ -	per year	
	Other Fixed O&M Cost, Size C	\$ -	5 -  5 -  5 -  5 -	per year	

		-	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	T
	Total utility capital investment, Size A Total utility capital investment, Size B	\$		- \$ - \$	- \$ - \$	- \$ - - \$ -	\$ - \$ -	per year per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement
	Total utility capital investment, size C	\$		- \$	- S			per year	resulting from these capital investments (shown below).
	, ,							1, ,	<u>.</u>
			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	T
	Est. Annual Revenue Requirement for Capital Projects, Size A Est. Annual Revenue Requirement for Capital Projects, Size B	\$		- \$ - \$		- \$ - - \$ -		per year per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as well as the utility "Fixed O&M Costs" captured above. This revenue requirement is calculated from the magnitude &
	Est. Annual Revenue Requirement for Capital Projects, Size C	\$		- \$	- \$	- \$ -		per year	timing of capital investment captured above, based on expected measure life (and depreciation time period), as well as the
		,							Listifice ration on initiatinant
			Total	USD (Nominal) Cost	I Inda				
	Est. Total Revenue Requirement for Capital Projects, Size A	\$	TOTAL	- per year	Offic.				The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on
	Est. Total Revenue Requirement for Capital Projects, Size B	\$		- per year					expected measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
	Est. Total Revenue Requirement for Capital Projects, Size C	\$		- per year					reference, it's not used to calculate any or the Mailla evaluation circena.
			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives, Size A	\$		- \$	- \$	- \$ -	\$ -	per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc).
	Incentives, Size B Incentives, Size C	\$		- \$	- \$	- \$ -	\$ -	per year	Do not include here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct install measures), or making a capital investment in a customer's project where the customer
	Incentives, Size C	\$		- \$	- \$	- \$ -	\$ -	per year	doesn't hold equinment ownership. Incentives will be used in the Participant Cost tests for the NGIA evaluation criteria.
			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives per Participant, Size A		#DIV/0!	\$	- #DIV/0!	#DIV/0!	#DIV/O!	per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size B Incentives per Participant, Size C		#DIV/0! #DIV/0!	\$	- \$	- #DIV/0! - #DIV/0!	#DIV/0! #DIV/0!	per participant per year per participant per year	
	incentives per ranticipant, size C		#51470:	Ψ	- 4	#BIV/0:	#51470:	per participant per year	<u></u>
	Calculations & Other Explanation:								
	Equipment and installation costs (for 3 pa		is scales linearly for larger p oring, analysis (for 3 particip		0,000 \$ 2,500 \$				
			oring, analysis (for 3 particip oring, analysis (for 6 particip		0,000 \$				
			oring, analysis (for 9 particip		0,000 \$				
			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Total Pilot Upfront Costs, Size A	\$	11	6,667 \$ 116	6,667 \$ 116,66	37 \$ 116,667	\$ 116,66	7 per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-
	Total Pilot Upfront Costs, Size B	\$			3,667 \$ 116,66				utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
	Total Pilot Upfront Costs, Size C	\$	11	6,667 \$ 116	5,667 \$ 116,66	67 \$ 116,667	\$ 116,66	7 per participant	covered by stately incentives, not include stately program durini costs.
			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Third Party Funding, Size A	\$		- \$	- \$		\$ -	per participant	If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for
TOTAL AND DIRECT	Third Party Funding, Size B Third Party Funding, Size C	\$		- \$	- \$	- \$ -	\$ -	per participant per participant	reference, it's not used to calculate any of the NGIA evaluation criteria.
PARTICIPANT PILOT	Description of source of external funding:	IRA, etc		- 4	- 3	- 3	-	per participant	1
COSTS	,	,							
	Direct Participant Pilot Costs, Size A	¢	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per participant	This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives
	Direct Participant Pilot Costs, Size B	\$		- \$	- \$	- \$ -	\$ -	per participant	are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the
	Direct Participant Pilot Costs, Size C	\$		- \$	- \$	- \$ -	\$ -	per participant	NGIA evaluation criteria. Note 1: some pilots taking a 'Direct Install' approach may see the utility covering all costs, with no upfront
	Calculations & Other Explanation:		Year 1	Year 2	Year 3	Year 4	Year 5		
	Escalations & Other Explanation:	n rate			3.82% 3.8			(for each pilot analysis year)	For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available
									from the United States Bureau of Labor Statistics, as reported in December for each of the last five years. Using the most
			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Participant Non-Energy Costs, Size A	\$		- \$	- \$	- \$ -	\$ -	per participant per year of pilot life	This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will
	Participant Non-Energy Costs, Size B	\$		- 8	- s	- s -	¢ _	per participant per year of pilot life	be used in the Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT NON- ENERGY COSTS	articipalitinon Energy costs, oles b	•		•	·	•	<u>*</u>	per participant per year or prior me	
ENERGY COSTS	Participant Non-Energy Costs, Size C	\$		- \$	- \$	- \$ -	\$ -	per participant per year of pilot life	
	Calculations & Other Explanation:		Year 1	Year 2	Year 3	Year 4	Year 5		
	Escalation	n rate				2% 3.82%		(for each pilot analysis year)	For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available
		<u> </u>							
			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Participant Non-Energy Savings, Size A	\$		- \$		- \$ -	·		This includes any operating savings like water savings.
PARTICIPANT NON-	Participant Non-Energy Savings, Size B	\$		- \$	- \$	- \$ -	\$ -	per participant per year of pilot life	
ENERGY SAVINGS	Participant Non-Energy Savings, Size C	\$		- \$	- \$	- \$ -	\$ -	per participant per year of pilot life	1
	Calculations & Other Explanation:								
									<del></del>
	Average Lifetime for Savings/Pilot Tech, Size A			15 years					
	Average Lifetime for Savings/Pilot Tech, Size B			15 years					
PILOT LIFE	Average Lifetime for Savings/Pilot Tech, Size C			15 years					
	Calculations & Other Explanation:								
	<del></del>								
	Avg. Dth/Participant Saved, Size A			724 Dth/Participant					
	Avg. Dth/Participant Saved, Size B			724 Dth/Participant					
	Avg. Dth/Participant Saved, Size C			724 Dth/Participant					
	Calculations & Other Explanation:	-	uivalent Full Load Hours of He	antine.	1904 hours/year				
NATURAL GAS		Eq	Gas Heat Pump Unit Cap		0,000 Btu/hour				
ENERGY SAVINGS: AVG. Dth/			eat Pumps per Building/Partic		3				
PARTICIPANT		Expected Savi			48% %				
SAVED	I								

799.7 Dth/year Estimated Gas Consumption with Gas Heat Pumps: 1,523.2 Dth/year Estimated Gas Consumption Before Gas Heat Pumps: 723.5 Dth/year Estimated Savings: Avg. Non-Gas Fuel Units/Part, Saved, Size A 0.00 kWh/Participant Units are kWh; could technically be other non-NG. Avg. Non-Gas Fuel Units/Part. Saved will be used in the Participant Cost tests for the NGIA evaluation criteria. vg. Non-Gas Fuel Units/Part. Saved, Size B 0.00 kWh/Participant Avg. Non-Gas Fuel Units/Part, Saved, Size C kWh/Participant Avg. Additional Non-Gas Fuel Units/Part.Used. Size A 0.00 kWh/Participant Avg. Additional Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the NGIA evaluation criteria. Avg. Additional Non-Gas Fuel Units/Part.Used, Size B kWh/Participant AVG. NON-GAS kvg. Additional Non-Gas Fuel Units/Part.Used, Size C :Wh/Participant Note: some gas heat pumps can also provide space cooling (this would provide electricity savings, but then would increase gas consumption). The quantification of this pilot is currently based on the assumption that units would not serve space cooling loads, but in the heat pump technology selection and participant recruitment phases it could be determined that some installations provide cooling (to also test such parameters). Calculations & Other Explanation: Year 1 Year 2 Year 3 Year 4 otal Annual Dth Saved, Size A Natural gas energy savings that result from multiplying savings per participant times the total number of new participants in a given year Total Annual Oth Saved Size R 2 171 2 171 Total Annual Dth Saved, Size C 4,341 SAVED Calculations & Other Explanation: Grid Mix Scenario Select one of the listed grid mix scenarios taking into account that: GRID MIX SCENARIO •Otilities shall use electric-utility-specific generation mix information for the renewable natural gas facility when it is reasonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from National Calculations & Other Explanation: his section does not apply to all pilot types. The GHG changes from decreased natural gas and/or electricity consumption will be calculated based on values above. However, for pilots where NGIA requires lifecycle GHG savings (e.g., RNG, hydrogen, carbon capture) this section accounts for the lifecycle change in GHG emissions (per unit of participation). Lifecycle GHG Intensity, Size A Year 1 Year 4 Dillities shall file a high, low, and expected greenhouse gas intensity for innovative resources included in a proposed Natural Gas innovation Act innovation (NGA) plan, where applicable. High and low scenarios shall incorporate at least tow and high assumptions or exelectivity use and other fuels used in the resource's Iflecycle. Expected greenhouse gas intensity values will be kg CO2e/participant 0.00 0.00 0.00 0.00 0.00 kg CO2e/participant Expected kg CO2e/participant High used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA Lifecycle GHG Intensity, Size B Year 1 Year 2 Year 3 Year 4 Year 5 kg CO2e/participant 0.00 kg CO2e/participant kg CO2e/participant INTENSITY BY PROJECT SIZE ifecycle GHG Intensity, Size C Year 1 Year 2 Year 3 Year 4 Year 5 kg CO2e/participant Expected .00 kg CO2e/participant kg CO2e/participant High Calculations & Other Explanation: GHG Intensity Ising this calculation structure is optional: if modifications are needed, please use the hidden rows or raise with project leads Size B Size C ow Scenario Expected Scenario ligh Scenario HER PILOT-SPECIFIC PARAMETERS (formerly 'Ger eak Reduction Factor PEAK REDUCTION Calculations & Other Explanation: Year 2 Year 3 USD (Nominal) Cost Unit: The CIP methodology is used for energy efficiency, However, the value for other innovative resources should be considered in the context of specific utility proposals. For example, resources like power-to-hydrogen and RNG may not decrease OSM costs as they also need to be transported to customers on the distribution system. Variable OSM will be used in the Utility Cost and Non Participant Cost tests for the NGM evaluation criteria. ariable O&M Cost, Applies to all project sizes 0.04 per Dth VARIABLE O&M Calculations & Other Explanation: Escalation rate n/a -5.250% -5 250% -5.250% -5.250% (for each pilot analysis year) Annual Escalation Rate calculated using the average percent change in the price of natural gas between 2023 through 2027 to all us USD (Nominal) Cost Unit The CIP methodology is used for all resources other than strategic electrification. The method for strategic electrification should be considered in the context of specific utility pilot proposals. equal to the average of daily real-time final market locational marginal prices (LMP) at the Minnesota Hub from January 1, 2022 to December 31, 2022 using data from Midwest Independent System Operator (MISO) on-Gas (i.e., Electric) Fuel Cost 44.14 per MWh NON-GAS FUEL Calculations & Other Explanation: 8.22% on-Gas Fuel Loss Factor The CIP methodology is used for all resources other than strategic electrification. The method for strategic electrification should be considered in the context of specific utility pilot proposals. In the most recent CIP, Staff used the weighted average of the most recent loss

NON-GAS FUEL
LOSS FACTOR
Calculations & Other Explanation:

factors reported by Minnesota Power, Xcel Energy, and Otter Tail Power's reported 2021 transmission and distribution loss factors and weighting by the utilities' 2017-2019 average retail sales

IER QUANTITATI\	/E CRITERIA:											
IER NON-GHG OLLUTANTS	Other Non-GHG Pollutants, Size A Other Non-GHG Pollutants, Size B Other Non-GHG Pollutants, Size C Calculations & Other Explanation:	\$ \$ \$		USD Cos 0.37 per Dth 0.37 per Dth 0.37 per Dth		Commission's approved d geographies or population can make deviations such	ollar per ton environmental cos	it values using escalation rate to iency project that targets an urb they can provide justification fo	nmental cost values approved by Minnesota Publ adjust by observed inflation between 2014 and 2 an area might use the urban value rather than the the change. Instead of requiring the use of media	021. Stakeholders expressed a preference fo	r allowing utilities to select differer	t externality values for pilots targeting specific
	Net Direct Job Creation, Size A Net Direct Job Creation, Size B Net Direct Job Creation, Size C Net Indirect Job Creation, Size A Net Indirect Job Creation, Size A Net Indirect Job Creation, Size B Net Indirect Job Creation, Size B		Year 1 Year 1	0 1 1 1 0 0 0 0 0 0 0	Year 2 Year 2	Year 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Year 4 2 3 3 Year 4 1 1	Year 5  O	Total during 5 program years  O  Total during 5 program years  O  O	Remainder of project life 2 4 6 Remainder of project life 2 3 4	1 # of jobs 1 # of jobs 2 # of jobs 0 # of jobs 1 # of jobs 1 # of jobs 1 # of jobs	Utilities should consider both created by proposed pilots a that may be eliminated by privates.  Utilities should consider both created by proposed pilots at that may be eliminated by proposed pilots.
JOB CREATION	Net Induced Job Creation, Size A Net Induced Job Creation, Size A Net Induced Job Creation, Size A		Year 1	0 0 0	Year 2	Year 3	Year 4	Year 5 0 0 0	Total during 5 program years  O  O  O	Remainder of project life 2 3 4	0 # of jobs 1 # of jobs 1 # of jobs	
	Calculations & Other Explanation:  Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.											
PUBLIC CO- BENEFITS	Public Co-Benefits, Size A Public Co-Benefits, Size B Public Co-Benefits, Size C Calculations & Other Explanation:	\$ \$ \$ \$	Year 1	- \$ - \$ - \$	Year 2	Year 3	Year 4 \$ \$ \$ \$ \$ \$	Year 5 -   \$ -   \$ -   \$	USD (Nominal) Cost Unit: - per year - per year - per year	Quantifiable in some cases. If this m Qualitative Considerations section b	etric isn't quantifiable, there is spacelow.	e for any qualitative comments in the Addition
FER POLLUTION	Water Pollution, Size A Water Pollution, Size B Water Pollution, Size C Calculations & Other Explanation:	\$ \$ \$	Year 1	- \$ - \$ - \$	Year 2	Year 3	Year 4	Year 5 - \$ - \$ - \$	USD (Nominal) Cost Unit: - per year - per year - per year			water pollution. This might be quantifiable for s we comments in the Additional Qualitative Cons
	ATIVE CONSIDERATIONS:											
A Utility spective Notes:	It is expected that most of the utility perspective costs and benefits will be quantifiable with and should be heavily informed by the structural values and CIP quantification methods.											
A Participants' pective Notes: nition:	It is expected that many of the elements of the participant perspective, with n from pilots that improve indoor air quality are two examples of benefits that n May assist MN businesses in achieving GHG goals	espect to the direct effe nay be difficult to quant.	ect of pilots, will be qu ify.	uantifiable and will	rely on the struct	tural values. Add here an	y information related to s	ome direct effects of pilot	s on participants that may not be easily c	uantifiable. For example, increased o	comfort in a home and health	benefits
<u>A</u>												

Effects on Other		
Energy Systems		
and Energy		
and Energy Security: Definition:		
	NGIA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utility and its customers. Measures like strategic electrification specifically require gas utilities and the Commission to avoid negative effects on the electric system. Further, the NGIA empowers the	
	Commission to consider a wide variety of "costs and benefits that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel markets.	
	Reduces fossil gas throughput; may reduce electric build out needs	
GHG Emissions Notes:		
Definition:	An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion of any environmental	
	justice effects of the pilot related to GHG emissions, these may not be quantifiable.	
	Use refrigerants with lower global warming potential	
Other Pollution		
Notes: Definition:		
	Include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.	
Waste Reduction		
and Reuse Notes:		
	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes reduction of water use.	
Definition.	reduction of water use.	
Policy Notes:		
	NGIA is intended to help the state achieve certain environmental policy goals including geologic gas throughput reduction and increased use of renewable	
Definition:	resources.	
	Reduces fossil gas throughput	
Net Job Creation		
Notes:		
Notes:	An innovation plan must include as applicable "projected local job impacts  in this face of the project of the	
Notes:	An innovation plan must include, as applicable, "projected local job impacts resulting from implementation of the plan". Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.	
Notes:	An innovation plan must include, as applicable, "projected local job impacts resulting from implementation of the plan" Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.	
Notes:	An innovation plan must include, as applicable, "projected local job impacts resulting from implementation of the plan." Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.	
Notes:  Definition:	An innovation plan must include, as applicable, "projected local job impacts resulting from implementation of the plan" Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.	
Notes:  Definition:  Economic Development.	An innovation plan must include, as applicable "projected local job impacts resulting from implementation of the plan" Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.	
Notes:  Definition:  Economic Development Notes:	An innovation plan must include as applicable "projected local job impacts resulting from implementation of the plan" Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.	
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Notes:  Definition:  Economic Development Notes: Definition:  Public Co-Benefits Notes: Definition:  Market Development Notes: Definition:  Direct Innovation Support Notes: Definition:	The NGA suggest the development of new markets or expension of markets in Minnesota For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits we realized  The NGA suggests the development of new markets or expension of markets in Minnesota For example, utilities are required to describe whether groposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits we realized  This casegory is intended to answer how the proposed plant supports the development and increased deployment of increased deployment or increased	

Resource Scalability and Role in a Decarbonized System Notes: Definition:

While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.

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Click here to go back to the list of all pilots NGIA Pilot Profiles Workbook CNP24 - Solar Thermal Heating for C&I

Pilot Project Code: CNP24 Pilot Project Name: Customer Class/ Sector: Low-Income Community Benefit? Target Area: Territory-wide Primary Innovative Resource Category: **Energy Efficiency** 

Select primary Innovation Category. Others can be listed here:

## Pilot Description:

This pilot would offer incentives for customers who install transpired solar air systems, which help facilities that have large make-up air loads reduce their energy consumption. The pilot would offer commercial and industrial customers an incentive to partially offset the cost to install the solar wall. This assumes that the projects in question, which have relatively high upfront costs, would not be cost-effective enough to qualify for any CIP incentives (if any projects did qualify for CIP they would be directed to that program instead of NGIA). Support for initial feasibility study is also included.

# DESCRIPTION

#### Overview of Program / Implementation Approach:

While incentive approaches/structures to encourage customers to adopt the findings of these studies are still under consideration, CenterPoint is considering leveraging a similar approach to CIP custom programs, with incentives determined based on the minimum of three cost caps (in CIP, this is 1 year payback, 50% of incremental costs, or \$5/Dth annual gas savings). CenterPoint expects the \$IDth cap to be the limiting factor for most projects considered under NGIA, and is considering higher incentive levels than the \$5/Dth for NGIA incentives. Projects that are eligible for rebates in CIP would not be eligible for these

### Other Comments / Information:

The level of participating units included here was based on a scan of CenterPoint customers that would seem to be potential candidates for the technology (e.g., facilities with large make-up air loads that can't use energy recovery wheels because of concerns of cross-contamination between inlet and exhaust air streams). It is unclear how successful the pilot would be in recruiting participants and/or how impactful the incentives envisioned here (2000 sqft).

KEY	PILO'	T-SPE	CIFIC	II	IPUTS:
					Dilat Ve

Year 1 Pilot Year Year 2 Year 3 Year 4 Year 5 Calendar Year 2028 Participating Units, Size A ntal units added, annual (not cumulative). Participating Units, Size B Participating Units, Size C

NUMBER OF

Calculations & Other Explanation:

Unit of Participation = 2000 Square Foot Solar Wall Project installed Assumptions for Archetype Project

Size of Solar Collector: Annual Gas Savings: Percent Gas Savings for HVAC: System Cost: \$

(knowing that project size and savings will be highly site-specific) 2000 square feet

5811 MMBtu/vear 160.000 \$

Annual Total Utility Incremental Cost, Size A
Annual Total Utility Incremental Cost, Size B
Annual Total Utility Ingramental Cost Size C

Annual Total Utility Incremental Cost, Size B	\$
Annual Total Utility Incremental Cost, Size C	\$

Fixed O&M Cost	, Size A
Fixed O&M Cost	Size B
F 1 0 C M 10	0: 0

Total Project Delivery, Size A Total Project Delivery, Size B Total Project Delivery, Size C

Internal Project Delivery, Size A Internal Project Delivery, Size B Internal Project Delivery, Size C

External Project Delivery, Size A External Project Delivery, Size B External Project Delivery, Size C

Advertising and Promotions, Size A Advertising and Promotions, Size B Advertising and Promotions, Size C

Trade Ally Incentives, Size A

Trade Ally Incentives, Size B

Allocation of General Portfolio Costs, Size A Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs, Size C

Trade Ally Incentives, Size C Workforce Development or Market Transformation Cost, Size A Vorkforce Development or Market Transformation Cost, Size B Workforce Development or Market Transformation Cost, Size C

Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:
\$ 70,105	\$ 70,399	\$ 90,702	\$ 91,014 \$	91,335	total cost per year
\$ 99,633	\$ 99,927	\$ 130,229	\$ 130,541 \$	130,862	total cost per year
\$ 158,688	\$ 158,982	\$ 209,284	\$ 209,596 \$	209,917	total cost per year

USD (Nominal) Cost Unit: Year 1 41,647 \$ 41,959 \$ 42,280 total cost per year 41344 \$ 41.050 \$ 56,647 \$ 57,280 total cost per year 56,959 \$ total cost per year

Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit: 41,030 per year 39,800 \$ 40,709 \$ otal internal and external project delivery 54,800 \$ 55.094 \$ 55,397 \$ 55,709 \$ 56,030 per year 84800 \$ 85.094 \$ 85.397 \$ 85,709 \$ 86,030 per year

Year 1 Year 4 10,397 \$ 10,709 \$ USD (Nominal) Cost Unit: Year 2 Year 3 10,094 \$ 11,030 per year 9.800 \$ CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" category above 9,800 \$ 10,094 \$ 10,397 \$ 10,709 \$ 11,030 per year 11,030 per year 9,800 \$ 10.094 \$

USD (Nominal) Cost Unit: Year 1 Year 2 Year 3 Year 4 Year 5 30,000 per year 45,000 per year 30,000 30,000 30,000 \$ 45,000 \$ 45,000 \$ 45.000 \$ 45,000 \$ 75,000 \$ 75,000 \$ 75,000 \$ 75,000 \$ 75,000 per year

Year 1 USD (Nominal) Cost Unit: 1250 \$ 1250 \$ 1,250 per year 1250 \$ 1,250 \$ nese costs are sub-set of the Utility "Fixed O&M Cost" category above. 1,250 per year 1,250 \$ 1,250 \$ 1.250 \$ 1.250 \$ 1,250 \$ 1.250 \$ 1.250 \$ 1,250 \$ 1,250 per year

USD (Nominal) Cost Unit: Year 1 Year 2 Year 3 Year 4 Year 5 per year per vear

Year 1 Year 2 USD (Nominal) Cost Unit: per vear f applicable, include here the annual amount of trade ally incentives (e.g. midstream program) per year per year

Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:
\$	\$ -	\$ -	\$ -	\$ -	per year
\$	\$ -	\$ -	\$ -	\$ -	per year
\$	\$ -	\$ -	\$ -	\$ -	per year

nese costs are sub-set of the Utility "Fixed O&M Cost" category above.

Cost" category above.

ese incremental utility costs are what will count against the NGIA budget cap for this measure and will be used in the Utility Cost, and Non articipant Cost tests for the MGIA evaluation criteria. This is the sum of utility admin costs to run pilot, any incentive funding to support project eployment, and/or the utility's annual revenue requirement for capital investments made on select pilots.

Fixed O&M Cost is the result of adding up Total Project Delivery, Advertising and Promotions, Utility Administration, Trade Ally Incentives, and

external vendor costs would include direct install costs where CNP reimburses the vendor. These costs are sub-set of the Utility "Fixed O&M

ire of portfolio level costs, including plan development costs, regulatory costs, and general portfolio costs

#### ILITY PILOT COSTS Year 1 Year 5 USD (Nominal) Cost Unit: Other Fixed O&M Cost, Size A per year hese costs are sub-set of the Utility "Fixed O&M Cost" category above. Other Fixed O&M Cost, Size B per year Other Fixed O&M Cost, Size C Year 1 Year 2 USD (Nominal) Cost Unit: Total utility capital investment, Size A per year This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the remental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement restments (shown below). Total utility capital investment, Size B per year Total utility capital investment, Size C per year Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit: Est. Annual Revenue Requirement for Capital Projects, Size A For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as per year per year well as the utility 'Fixed O&M Costs' captured above. This revenue requirement is calculated from the magnitude & timing of capital investment Est. Annual Revenue Requirement for Capital Projects, Size B ptured above, based on expected measure life (and depreciation time period), as well as the utility's return on inves Est. Annual Revenue Requirement for Capital Projects, Size C Total USD (Nominal) Cost Unit: Est. Total Revenue Requirement for Capital Projects, Size A per year The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected Est. Total Revenue Requirement for Capital Projects, Size B measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to per year calculate any of the NGIA evaluation criteria. Est. Total Revenue Requirement for Capital Projects, Size C per year USD (Nominal) Cost Unit: Year 1 Year 2 Year 4 Year 5 49,055 \$ This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc). Do not include here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG audits or direct Incentives, Size A 29.055 29.055 49.055 \$ 49,055 per year 73.583 \$ Incentives, Size B 43.583 \$ 43.583 \$ 73.583 \$ 73,583 per year istall measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will Incentives, Size C 122,638 per year taste for the MGM avaluation crit Year 1 USD (Nominal) Cost Unit: 24.528 \$ 24,528 \$ 24,528 \$ 24,528 per participant per year 24,528 per participant per year Incentives per Participant, Size A 14.528 \$ 14.528 \$ Incentives per participant is a function of total incentives paid directly to customers. Incentives per Participant, Size B 14,528 \$ 14,528 \$ 24,528 \$ ncentives per Participant, Size C 14,528 \$ 14,528 24,528 \$ 24,528 \$ 24,528 per participant per year Calculations & Other Explanation: Incentive Cap: \$ 25 \$/Dth annual gas savings \$10,000 \$/participant Study Support: Additional Sites that Receive Audit Funding But Do Not Complete Project: 50% % Year 1 USD (Nominal) Cost Unit: 160,000 \$ 160,000 \$ 160,000 per participant 160,000 \$ 160,000 \$ This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs. Total Pilot Unfront Costs Size A Total Pilot Upfront Costs, Size B 160,000 160,000 per participant Total Pilot Upfront Costs, Size C Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit: Third Party Funding, Size A If there are expectations for external funding sources (e.g. IRA, etc) account for those values here. This funding is noted here for reference, it's per participant Third Party Funding, Size B not used to calculate any of the NGIA evaluation criteria. Third Party Funding, Size C per participant Description of source of external funding: IRA etc. Year 1 Year 4 Year 5 USD (Nominal) Cost Unit: Direct Participant Pilot Costs, Size A 145,473 \$ 145,473 per participant This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted Direct Participant Pilot Costs, Size B 145,473 145.473 \$ 145.473 per participant from the total unfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note ome pilots taking a 'Direct Install' approach may see the utility covering all costs, with no upfront financial contribution from the participant. Direct Participant Pilot Costs, Size C per participant Calculations & Other Explanation: Year 1 Year 2 3.82% 3.82% 3.82% 3.82% (for each pilot analysis year) 3.82% Escalation rate For an escalation rate, we use Year 1 Year 2 Year 3 Year 4 Year 5 USD (Nominal) Cost Unit: per participant per year of pilot life Participant Non-Energy Costs, Size A This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Non-Energy Costs, Size B Participant Cost tests for the NGIA evaluation criteria. per participant per year of pilot life PARTICIPANT NON-Participant Non-Energy Costs, Size C **ENERGY COSTS** Calculations & Other Explanation: Year 1 Year 2 Year 3 Year 5 3.82% 3.82% 3.82% 3.82% (for each pilot analysis year) Escalation rate For an escalation rate, we use Year 1 USD (Nominal) Cost Unit: Participant Non-Energy Savings, Size A per participant per year of pilot life This includes any operating savings like water savings. Participant Non-Energy Savings, Size B per participant per year of pilot life articipant Non-Energy Savings, Size C per participant per year of pilot life **ENERGY SAVINGS** Calculations & Other Explanation: verage Lifetime for Savings/Pilot Tech, Size A verage Lifetime for Savings/Pilot Tech, Size B verage Lifetime for Savings/Pilot Tech, Size C PILOT LIFE Calculations & Other Explanation:

NATURAL GAS ENERGY SAVINGS: AVG. Dth/ PARTICIPANT SAVED	Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C Calculations & Other Explanation:	581 Oth/Participant 581 Oth/Participant 581 Oth/Participant		
AVG. NON-GAS FUEL UNITS/ PART.	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C Avg. Additional Non-Gas Fuel Units/Part.Used, Size A Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C Calculations & Other Explanation	O.00   kWh/Participant	Units are kWh; could technically be other non-NG. Avg. Non-Gas Fuel Units/Part. Saved will be are kWh; could technically be other non-NG. Avg. Non-Gas Fuel Units/Part. Used will be used in the Participant Cost tests for the control of the Participant Cost tests for the control of the Participant Cost tests for the cost of the participant Cost tests for the particip	
TOTAL ANNUAL Dth SAVED	Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C Calculations & Other Explanation:	Year 1         Year 2           U62         U62           1743         1743           2,906         2,906		Natural gas energy savings that result from multiplying savings per participant times the total number of new participants in a given year
GRID MIX SCENARIO	Grid Mix Scenario  Calculations & Other Explanation:	No Electricity Impact	Select one of the listed grid mix scenarios taking into account that  40:Bities shall use electric-utility-specific generation mix information for the renewable nature  10:10:10:10:10:10:10:10:10:10:10:10:10:1	gas facility when it is reasonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from
LIFECYCLE GHG INTENSITY BY PROJECT SIZE	This section does not apply to all pilot types. The GHG changes from decree Lifecycle GHG Intensity, Size A Low Expected High Lifecycle GHG Intensity, Size B Low Expected High Lifecycle GHG Intensity, Size C Low Expected High Calculations & Other Explanation: Low Scenario Expected Scenario High Scenario	Year 1   Year 2	Year 3         Year 4         Year 5           kg CO2e/participa	invovation (NGAI) plan where applicable high and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resources iffercycle Expended greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.  It is not the second of the program
PEAK REDUCTION FACTOR	C PARAMETERS (formerly 'General Parameters' in CIP Calculator):  Peak Reduction Factor <u>Calculations &amp; Other Explanation</u> :	196 The estimated average aroual ed Cost tests for the NGIA evaluation	affect of the project on system peak. It is estimated to be TK for energy efficiency pilots. The me ion criteria.	hod for other innovative resources should be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the Utility Cost and Non Participant
VARIABLE O&M	Variable O&M Cost, Applies to all project sizes  Calculations & Other Explanation:  Escalation rat	Values now linked directly back to planning assumptions tab (possible given the combinate Year 1         Year 2           \$         0.05         \$         0.04           Year 1         Year 2         Year 2         Year 3         Year 3	Year 3 Year 4 Year 5	The CP methodology is used for energy efficiency, However, the value for other innovative resources should be considered in the context of spicil (still) proposals for exemple resources like power-to-typicing- and RMG may not decreases QMG also set they also need to be transported to outstomers on the distribution system. Variable OSM will be used in the Utility Cost and Non Participant Cost tests for the NGIA evaluation criteria.
NON-GAS FUEL COST	Non-Gas (i.e., Electric) Fuel Cost <u>Calculations &amp; Other Explanation</u> :	USD (Nominal) Cost Unit: \$ 44.14 per MWh	The CIP methodology is used for all resources other than strategic electrification. The method	for strategic electrification should be considered in the context of specific utility pilot proposals. nesota Hub from January 1, 2022 to December 31, 2022 using data from Midwest Independent System Operator (MISO)
NON-GAS FUEL LOSS	Non-Gas Fuel Loss Factor Calculations & Other Evaluation	822%	The CIP methodology is used for all resources other than strategic electrification. The methodoloss factors reported by Minnesota Power, Xcel Energy, and Otter Tail Power's reported 2021	for strategic electrification should be considered in the context of specific utility pilot proposals. In the most recent CIP, Staff used the weighted average of the most recent ransmission and distribution loss factors and weighting by the utilities 2017-2019 average retail sales

OTHER NON-GHG POLLUTANTS Other N Calculat  Net Dir. Net Dir. Net Ind. Net Ind. Net JOB CREATION Net Ind. Net JOB CREATION Net Ind. Net Ind.	RIA:  Non-GHG Pollutants, Size A  Non-GHG Pollutants, Size B  Non-GHG Pollutants, Size C  lations & Other Explanation:  Irrect Job Creation, Size A  Irrect Job Creation, Size B  Irrect Job Creation, Size C  Indirect Job Creation, Size A  Indirect Job Creation, Size B  Irrect Job Creation, Size A  Indirect Job Creation, Size A	\$ 0.3 \$ 0.3 Year 1	USD Cost Unit: 17 per Dth 18 per Dth 19 per Dth 19 per Dth 19 per Dth 10	the Commission's approved geographies or population. Utilities can make deviation	ed dollar per ton enviro ns. For example, an ene ons such as these in the	nmental cost values rgy efficiency projec iir NGIA plans if they	using escalation rate to adjust by observed inflations that targets an urban area might use the urban va	on between 2014 and 2021 Stakehe blue rather than the metropolist in if I requiring the use of median metro requiring the use of median metro Remainder of project life	ilders expressed a preference for inge value. Similarly, a project targ politan fringe values for all non-Gi	are reported in 2021 dollars in Table 2 below, which were calculated by inflating allowing utilities to select different externality values for pilots targeting specificating a low-income population might use a high value rather than the median. HQ pollutants, as shown in Table 1 of the Commission's January 3, 2018 Order in the Commission's January 3, 2018 Order i
OTHER NON-GHG POLLUTANTS Other N Calculat  Net Dir. Net Dir. Net Ind	Non-GHG Pollutants, Size B  Non-GHG Pollutants, Size C  lations & Other Explanation:  lirect Job Creation, Size A  rect Job Creation, Size B  lirect Job Creation, Size C  direct Job Creation, Size A  direct Job Creation, Size B  direct Job Creation, Size B  direct Job Creation, Size A  direct Job Creation, Size B	\$ 0.3 \$ 0.3 Year 1	yer Dth per Dth per Dth yer Dth Year 2	the Commission's approve geographies or population Utilities can make deviation Docket No. EB999/CI-M-64  Year 3  1  2 2 2 2	ed dollar per ton erwir- ns. For example, an ene ns such as these in th 43, utilities may use th	nmental cost values rgy efficiency projec iir NGIA plans if they e value most applicai	using escalation rate to adjust by observed inflation that targets a mobina area might use the uban vo can provide justification for the change, instead or lole for the pilot or measure.	on between 2014 and 2021 Stakehe blue rather than the metropolist in if I requiring the use of median metro requiring the use of median metro Remainder of project life	idders expressed a preference for ingree value. Similarly, a project trapp application fringe values for all non-Gi	allowing utilities to select different externally values for pilots targeting specific eting a four-income population might use a high value rather than the median HS polutants, as shown in Table I of the Commission's January 3, 2018 Order is polutants, as shown in Table I of the Commission's January 3, 2018 Order is Utilities should consider both jobs created by proposed pilots and jobs tha
Net Dir.  Net Ind  Net Ind  Net Ind  Net Ind  NET JOB CREATION  Net Ind  Net Ind	irect Job Creation, Size B irect Job Creation, Size C idirect Job Creation, Size A direct Job Creation, Size B direct Job Creation, Size C	Year 1	1 2	1 1 2 2 2	Year 4  1 1 2 2 2 2	Year 5	Total during 5 program years	Remainder of project life	# of jobs	Utilities should consider both jobs created by proposed pilots and jobs the
Net Ind Net Ind NET JOB CREATION Net Ind Net Ind	direct Job Creation, Size B direct Job Creation, Size C duced Job Creation, Size A		Year 2	V 2				11	# of jobs	may be eliminated by proposed pilots.
Net Ind Net Ind			1	1 1 1	Year 4  1 1 1 1 1 1 1	Year 5	Total during 5 program years		# of jobs # of jobs # of jobs # of jobs	Utilities should consider both jobs created by proposed pilots and jobs the may be eliminated by proposed pilots.
	duced Job Creation, Size A	Year 1	Year 2	Year 3	Year 4  1 1 1 1 1 1 1 1	Year 5  1  2	Total during 5 program years	Remainder of project life 3 2 4 5 7 8	# of jobs # of jobs # of jobs	
	lations & Other Explanation:  mbers are estimated as Full Time Equivalents (FTE) and are rounded off.									
Public Co-BENEFITS Public C	Co-Benefits, Size A Co-Benefits, Size B Co-Benefits, Size C Stations & Other Explanation:	Year1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Year 2 - \$ \$ \$	Year 3 \$ \$ -	Year 4	\$ -	USD (Nominal) Cost Unit: per year per year per year	Quantifiable in some cases. If Considerations section below		is space for any qualitative comments in the Additional Qualitative
Water F WATER POLLUTION Water F	r Pollution, Size A r Pollution, Size B r Pollution, Size C ations & Other Explanation:	Year1 \$ \$ \$	Year 2 - \$ - \$ \$	Year 3 - \$ - \$ - \$	Year 4	\$ - \$ -	USD (Nominal) Cost Unit: per year per year per year	The legislation left the door of this metric isn't quantifiable, t	oen to quantify any costs and benere is space for any qualitative or	efits on water pollution. This might be quantifiable for some of the projects. If imments in the Additional Qualitative Considerations section below.
quantifi	ONSIDERATIONS:  specied that most of the utility perspective costs and benefits will be  filiable with and should be heavily informed by the structural values and  antification methods.									
comfort May ass	pected that many of the elements of the participant perspective, with resp ort in a home and health benefits from pilots that improve indoor air quality ssist MN businesses in achieving GHG goals	eect to the direct effect of pilots, will be quantified are two examples of benefits that may be diffici	ible and will rely on the struct ult to quantify.	ural values. Add here any	y information relat	ed to some direct	t effects of pilots on participants that may	r not be easily quantifiable. F	or example, increased	
particip.	h the utility perspective, the direct effects of pilot programs on non- pating customers should be quantified in most cases and can be heavily sed by structural values.									

Section of the reconsect potent and reconsect potent and reconsect potent and reconsect potential and	Effects on Other Energy Systems and Energy Security: Definition:		
As contained as a manifold in the statistical for a manifold in the statistic for a manifold i		Further, the NGIA empowers the Commission to consider a wide variety of "costs and benefits that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel markets.	
As contained as a manifold in the statistical for a manifold in the statistic for a manifold i			
Section 1	Notes: Definition:	An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.	
Section 1	Other Pollution		
Set Description  All Control  A	Notes: Definition:	Include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.	
And a contact of the	Waste Reduction		
Notice absorbed to the state of the first place and an extended to the place of the control of of th		Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes reduction of water use.	
and in conting prompting and include and in contended and only contended and included and includ	Policy Notes:	NOVE is introducted by the state spining analysis an improperty action and	
An invention plan must include an applicable, frequenced local job impacts and long to must make a principal. Tables a should consider points and included by approached job that may be eliminated by prepased jobs.  An invention plan must make a finding that may be eliminated by prepased jobs.  An invention plan must make a finding that the resource of jobs is a form of accounts; development, but consume, development is breaker for example, plate that pay workers a king wage or support appearationships or braining apportunities would provide  An invention plan must make a finding that the resource of plan is a form of accounts; development, but consume, development is breaker for example, plate that pay workers a king wage or support appearationships or braining apportunities would provide  An invention plan must make a finding that the resource of plan is a form of accounts; development, but consume, development is breaker for example, plate that pay workers a king wage or support appearationships or braining apportunities would provide a street in the plan payor that pay workers a king wage or support appearationships or braining apportunities would provide a street in the plan payor that pay workers a king wage or support appearationships or support appearationships are plant and payor that pay workers a king wage or support appearationships are plant and payor that pay workers a king wage or support appearationships are plant and payor that payor workers a king wage or support appearationships are plant and payor that payor workers a king wage or support appearationships are plant and payor that pa	Definition:	including geologic gas throughput reduction and increased use of renewable resources.	
As invention alon must include, an applicable, proposed plots and proposed plots are proposed plots and proposed plots are proposed plots and proposed plots and proposed plots and proposed plots and proposed plots are prop	Net Job Creation		
commiss.  constraints:  The Commission must make a finding that the innovation plan "promotes local economic development." O'reation of jobs as a form of accoromic development, but accoromic development is broader for example, plots that pay workers a fiving wage or support apprentications or training apportunities would provide distinctive according to the five innovation plan "promotes local economic development." O'reation of jobs as a form of accoromic development is broader for example, plots that pay workers a fiving wage or support apprentications or training apportunities would provide distinctive according to the five innovation plan "promotes local economic development."  The Commission must make a finding that the innovation plan "promotes local economic development, but according to the secondary plans and the innovation plans to the advantage of tax benefits.  The ROMA supports the development of rear search, the NOAA is intended to help support westerwater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.  Interest Posteliopment  The NOAA supports the development of rear markets or expansion of markets in Minnesota For example, selfitors are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are realized  May help Min businesses appeal to customers intrested in sustainability.  The category is intended to assess how the proposed jobs supports the development and increased displayment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NOAAO are unlikely to produce significant benefits on their on their own business and the support in the contract of the support in the contract of the support in the contract of the con	<u>Notes:</u>	resulting from implementation of the plan." Utilities should consider both jobs	
Recoluments to take a finding that the innovation plan "promotes local economic development." Creation of jobs is from of economic development but economic development is broader. For example, plots that pay workers a living wage or support apprenticeships or training opportunities would provide winding and increased development to take advantage of tax benefits.  The Commission must make a finding that the innovation plan "promotes local economic development but economic development is broader. For example, plots that pay workers a living wage or support apprenticeships or training opportunities would provide winding and increased of the projects and foliation of the project and foliation of the projects and foliati	Definition:	created by proposed pilots and jobs that may be eliminated by proposed pilots.	
rest Innovation.  White Co-Benefits  Latest Excelopment Latest Excelop	Economic Development Notes: Definition:		
tarket Development at lare at Innovation.  The NGA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of alternative agricultural products, as well as the geographic areas of the state where benefits are realized May help MN businesses appeal to customers interested in sustainability  This category is intended to answer how the proposed plot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA 40 are unlikely to produce significant benefits on their own but are intended to lead to future opportunities.			
itest Innovation.  upport Notes:  within:  This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA 40 are unlikely to produce significant benefits on their cown but are intended to lead to future opportunities.	Public Co-Benefits Notes: Definition:	There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.	
itest Innovation.  upport Notes:  within:  This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA 40 are unlikely to produce significant benefits on their cown but are intended to lead to future opportunities.			
May help MN businesses appeal to customers interested in sustainability    Intert Innovation.	Market Development Notes: Definition:		
upport Notes:  refinition:  This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA 40 are unlikely to produce significant benefits on their own but are intended to lead to future opportunities.		May help MN businesses appeal to customers interested in sustainability	
efinition: This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA.40 are unlikely to produce significant benefits on their own but are intended to lead to future opportunities.	Direct Innovation		
	Support Notes: Definition:	This category is intended to answer how the proposed pilot supports the development and increased deployment of innovative resources beyond the direct program impacts. For example, research and development projects, which are permitted under the NGIA 40 are unlikely to produce significant benefits on their	

Resource Scalability and Role in a Decarbonized System Notes: Definition:

While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.

کاٰدِ ۲۱CF		Click here to go back to the list of all pilots		NGIA Pilot Profiles Workbook	
∕ICF	CNP25 - Industrial and Large Commercial GHG Audit Pilot				
	Pilot Project Code:	CNP25			
	Pilot Project Name:	Industrial and Large Commercial GHG Audit Pilot			
	Customer Class/ Sector:	C&I			
	Low-Income Community Benefit? Target Area:	Territory-wide			
	Primary Innovative Resource Category:		lect primary Innovation Category. Others can be listed here:	Strategic electrification, renev	wable natural gas, biogas, carbon capture
DESCRIPTION	Pilot Description: CenterPoint Energy proposes to expand its existing Process Efficiency and C	ommercial Efficiency CIP offering to include identification	of non-CIP GHG reducing opportunities for industrial and larg	a commercial customers.	
DESCRIPTION	Overview of Program/ Implementation Approach:				
	This would build off the existing CIP program, enhancing those energy audits would be established for specific types of technologies that have not traditic.  The focus categories would include:  1. Electric heat pumps for certain process hot water needs (including review).  2. Electric heat pumps for certain process hot water/ process cooling and with process cooling and with process efficiency improvements through improved process heat exchange the process of the process of the process heat exchange the process of the proces	onally been cost-effective under CIP but could leverage fu ing and applying appropriate new technologies ) nter makeup air heating	of reduction opportunities, he plan whole not be to conduct dring from NGIA to help them proceed. There are a number of	extra audits, just einnance current number of audits undece thro types of opportunities identified in past CIP audits, where recor	ugn c.ir. Additionally, a new Custom incentive stream immendations are not typically implemented.
	Other Comments / Information:				
	For this initial estimate we establish one representative project to assess the	potential economics of this pilot. We expect the actual p	roject sizes could be smaller or larger that this example, and t	hat different types of technologies (in the three categories outlin	ned above) could qualify.
KEY PILOT-SPECIFIC	INPUTS:				
	Pilot Year	Year 1	Year 2 Year 3 Year 4	Year 5	
	Calendar Year Participating Units, Size A	2024	2025 2026 20	27 2028 Incremental units added, annual (not cumulative).	
	Participating Units, Size B	2	2 2	2 2	
NUMBER OF	Participating Units, Size C	3	3 3	3 3	
PARTICIPANTS	Unit of Participation Calculations & Other Explanation:	n = GHG Reduction Project Implemented			
	Saledations & Other Expandition.	2024	2025 2026 20	27 2028	
	Planned CIP Audits per Ye		10 10	10 10	
		(Not all audits results in projects implemented)			
		Year 1	Year 2 Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:	
	Annual Total Utility Incremental Cost, Size A	\$ 259,438 \$	260,068 \$ 260,716 \$ 261,38		These incremental utility costs are what will count against the NGIA budget cap for this measure and will be used in the Utility Cost, and Non
	Annual Total Utility Incremental Cost, Size B Annual Total Utility Incremental Cost, Size C	\$ 396,275 \$ \$ 533,113 \$	396,905 \$ 397,554 \$ 398,2: 533,743 \$ 534,391 \$ 535,06	22 \$ 448,911 total cost per year	Participant Cost tests for the NGIA evaluation criteria. This is the sum of utility admin costs to run pilot, any incentive funding to support projet deployment, and/or the utility's annual revenue requirement for capital investments made on select pilots.
	Armual Total othity incremental cost, 329 C	\$ 333,113 \$	333,743 \$ 334,381 \$ 330,00	60 \$ 585,748 total cost per year	1 **, * * * * * * * * * * * * * * * * *
		Year 1	Year 2 Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:	
	Fixed O&M Cost, Size A Fixed O&M Cost, Size B	\$ 122,600 \$ \$ 122,600 \$	123,230 \$ 123,879 \$ 124,54 123,230 \$ 123,879 \$ 124,54		Fixed O&M Cost is the result of adding up Total Project Delivery, Advertising and Promotions, Utility Administration, Trade Ally incentives, and Workforce Development of Market Transformation Cost
	Fixed O&M Cost, Size B Fixed O&M Cost, Size C	\$ 122,600 \$	123,230 \$ 123,879 \$ 124,56	17 \$ 175,236 total cost per year	
					1
	Total Project Delivery, Size A	Year 1   121,000   \$	Year 2 Year 3 Year 4 121,630 \$ 122,279 \$ 122,94	Year 5 USD (Nominal) Cost Unit: 17 \$ 173,636   per year	Total internal and external project delivery
	Total Project Delivery, Size B	\$ 121,000 \$	121,630 \$ 122,279 \$ 122,94		,
	Total Project Delivery, Size C	\$ 121,000 \$	121,630 \$ 122,279 \$ 122,94	17 \$ 173,636 per year	
		Year 1	Year 2 Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:	
	Internal Project Delivery, Size A	\$ 21,000 \$	21,630 \$ 22,279 \$ 22,94	7 \$ 23,636 per year	CNP staff. These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Internal Project Delivery, Size B	\$ 21,000 \$ \$ 21,000 \$	21,630 \$ 22,279 \$ 22,94 21,630 \$ 22,279 \$ 22,94		
	Internal Project Delivery, Size C	\$ 21,000 \$	21,630 \$ 22,279 \$ 22,94	23,036 per year	
		Year 1	Year 2 Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:	<u>.</u>
	External Project Delivery, Size A External Project Delivery, Size B	\$ 100,000 \$ \$ 100,000 \$	100,000 \$ 100,000 \$ 100,00 100,000 \$ 100,000 \$ 100,00	0 \$ 150,000 per year 0 \$ 150,000 per year	External vendor costs would include direct install costs where CNP reimburses the vendor. These costs are sub-set of the Utility 'Fixed O&M' Cost' category above.
	External Project Delivery, Size C	\$ 100,000 \$	100,000 \$ 100,000 \$ 100,00	0 \$ 150,000 per year	
					•
	Advertising and Promotions, Size A	Year 1 1,600 \$	Year 2 Year 3 Year 4 1,600 \$ 1,600 \$ 1,600	Year 5         USD (Nominal) Cost Unit:           0         \$ 1,600 per year	These costs are sub-set of the Utility "Fixed O&M Cost" category above.
	Advertising and Promotions, Size B	\$ 1,600 \$	1,600 \$ 1,600 \$ 1,60	0 \$ 1,600 per year	, , , , , , , , , , , , , , , , , , ,
	Advertising and Promotions, Size C	\$ 1,600 \$	1,600 \$ 1,600 \$ 1,60	0 \$ 1,600 per year	
		Year 1	Year 2 Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:	
	Allocation of General Portfolio Costs, Size A			per year	Share of portfolio level costs, including plan development costs, regulatory costs, and general portfolio costs
	Allocation of General Portfolio Costs, Size B Allocation of General Portfolio Costs, Size C			per year	
	Anocation of General Folitiono Costs, SIZE C			per year	1
	L	Year 1	Year 2 Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:	T
	Trade Ally Incentives, Size A Trade Ally Incentives, Size B	\$ - \$	- \$ - \$ -	\$ - per year \$ - per year	If applicable, include here the annual amount of trade ally incentives (e.g. midstream program)
	Trade Ally Incentives, Size B	\$ - \$	- \$ - \$ -	\$ - per year	
		Year 1	Year 2 Year 3 Year 4	Year 5 USD (Nominal) Cost Unit:	

	Workforce Development or Market Transformation Cost, Size A Workforce Development or Market Transformation Cost, Size B	\$	- \$	- :	\$ - ! \$ - !		\$ - \$ -	per year per year	These costs are sub-set of the Utility 'Fixed OSM Cost' category above.
UTILITY PILOT COSTS	Workforce Development or Market Transformation Cost, Size C	\$	- \$	- !	\$ - !	-	\$ -	per year	
	Other Fixed O&M Cost, Size A	\$	Year 1 -   \$	Year 2	Year 3	Year 4	Year 5 -	USD (Nominal) Cost Unit: per year	These costs are sub-set of the Utility 'Fixed OSM Cost' category above.
	Other Fixed O&M Cost, Size B Other Fixed O&M Cost, Size C	\$	- \$ - \$	- :	\$ - ! \$ - !	-	\$ - \$ -	per year per year	
			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	<b></b>
	Total utility capital investment, Size A Total utility capital investment, Size B	\$	- \$ - \$	5 - ! 5 - !	\$ - ! \$ - !	-	\$ - \$ -	per year per year	This tracks expectations for when this pilot would require capital investments from the utility, if applicable. This will not directly feed into the incremental costs for NGIA, but instead will be used to estimate the timing and level of annual revenue requirement resulting from these capital
	Total utility capital investment, Size C	\$	- \$	- :	\$ - !	-	\$ -	per year	investments (shown below).
	Est. Annual Revenue Requirement for Capital Projects, Size A	s	Year 1 _   \$	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per year	For capital projects, the incremental cost impact on the NGIA budget is the annual revenue requirement (return of and on capital additions), as
	Est. Annual Revenue Requirement for Capital Projects, Size B Est. Annual Revenue Requirement for Capital Projects, Size C	\$	- 4	- :	\$ - !	-	\$ - \$ -	per year per year	well as the utility 'Fixed O&M Costs' captured above. This revenue requirement is calculated from the magnitude & timing of capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment.
	Est. Affidal Neverlae Negalierileric for Capital Frojects, Size C	•	Total U	SD (Nominal) Cost Unit:	•		•	poryear	
	Est. Total Revenue Requirement for Capital Projects, Size A Est. Total Revenue Requirement for Capital Projects, Size B Est. Total Revenue Requirement for Capital Projects, Size C	\$ \$	- p	er year er year er year					The total revenue requirement is calculated from the magnitude & timing of total capital investment captured above, based on expected measure life (and depreciation time period), as well as the utility's return on investment. This cost is noted here for reference, it's not used to calculate any of the PGIQ evaluation orderia.
		•	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Incentives, Size A Incentives, Size B	\$	136,838 \$ 273,675 \$	3 136,838 : 273,675	\$ 136,838 \$ \$ 273,675 \$	136,838	\$ 136,838 \$ 273,675	per year per year	This tracks total incentives paid directly to customers (customer rebates like money, gift cards or other fungible payments, etc). Do not include here cost of customer benefits delivered directly to the customer by a program vendor (paying for the cost of energy/GHG sudits or direct
	Incentives, Size C	\$	410,513 \$	410,513	\$ 410,513	410,513	\$ 410,513	per year	install measures), or making a capital investment in a customer's project where the customer doesn't hold equipment ownership. Incentives will ha read in the Participant Onet teste for the NGIA evaluation criteria.
	Incentives per Participant, Size A	ė	Year 1	Year 2	Year 3	Year 4 136,838	Year 5	USD (Nominal) Cost Unit: per participant per year	Incentives per participant is a function of total incentives paid directly to customers.
	Incentives per Participant, Size B Incentives per Participant, Size C	\$	136,838 \$ 136,838 \$		\$ 136,838		\$ 136,838	per participant per year per participant per year per participant per year	intervives per participant is a function of usa incentives part unectry to customes.
		\$	130,838   \$	130,838	\$ 130,838	130,838	\$ 130,838	per participant per year	
	Calculations & Other Explanation:								
	M&V - Total Cost for Whole Pil	ot:	\$50,000 fla	at rate assumed, regardless	s of pilot size				
	Incentive Ca	ар: \$	25 \$,	/Dth annual gas savings					
	NGIA-related CNP Cost Per Customer Enroll		\$10,000						
	Total Project Co Baseline Upgrade Optic	on: \$	- (E	osts from a Furnace Exhaus Baseline option is no upgrac			IP industrial au	dit, that was not eligible for CIP rebates, had	I an expected payback of 6-7 years, and was not implemented by the customer
	Total Incremental Project Co	ost: \$	300,000						
		sst: \$	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:	
	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B	\$ \$ \$		Year 2 300,000 3 300,000 3	Year 3	Year 4 \$ 300,000	\$ 300,000	per participant per participant	This represents the total equipment and installation costs for technologies implemented as part of this pilot (specifically non-utility capital projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor
	Total Pilot Upfront Costs, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 1 300,000 \$ 300,000 \$ 300,000 \$	300,000	Year 3 \$ 300,000   \$	Year 4 \$ 300,000	\$ 300,000	per participant per participant per participant	
	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C	\$ \$ \$ \$ \$	Year 1 300,000 \$	300,000	Year 3 \$ 300,000   \$	Year 4 \$ 300,000	\$ 300,000	per participant per participant per participant USD (Nominal) Cost Unit:	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's
TOTAL AND DIRECT	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 1 300,000 \$ 300,000 \$ 300,000 \$	300,000 3 300,000 3 300,000 3	Year 3 \$ 300,000 ! \$ 300,000 !	Year 4 300,000 300,000 300,000	\$ 300,000 \$ 300,000 \$ 300,000	per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.
TOTAL AND DIRECT PARTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A	\$ \$ \$ \$ \$ IRA, etc	Year 1 300,000 \$ 300,000 \$ 300,000 \$	300,000 3 300,000 3 300,000 3	Year 3 \$ 300,000 ! \$ 300,000 !	Year 4 300,000 300,000 300,000	\$ 300,000 \$ 300,000 \$ 300,000	per participant per participant per participant USD (Nominal) Cost Unit: per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's
PARTICIPANT PILOT	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Description of source of external funding:	\$ \$ \$ \$ \$ \$ \$ \$	Year 1 300,000 \$ 300,000 \$ 300,000 \$	300,000 3 300,000 3 300,000 3	Year 3 \$ 300,000 ! \$ 300,000 !	Year 4 3 300,000 3 300,000 3 300,000 Year 4 5 -	\$ 300,000 \$ 300,000 \$ 300,000 Year 5 \$ - \$ - Year 5	per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant per participant per participant per participant USD (Nominal) Cost Unit:	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (eg. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A	\$ \$ \$ \$ \$ \$ \$ \$	Year 1  300,000   \$ 300,000   \$ 300,000   \$  Year 1	300,000   300,000   300,000   1	Year 3 \$ 300,000   \$ 300,000   \$ \$ 900,000   \$ Year 3	Year 4 300,000 300,000 300,000 Year 4 5 - 5 - Year 4	\$ 300,000 \$ 300,000 \$ 300,000 Year 5 \$ - \$ - \$ - \$ - \$ 163,163 \$ 163,163	per participant per participant per participant USD (Nominal) Cost Unit: per participant USD (Nominal) Cost Unit: per participant per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C	\$ \$ \$ \$ \$ \$ \$ \$	Year 1  300,000   \$ 300,000   \$ 300,000   \$  Year 1  -            -          -          -	300,000   300,00	Year 3 \$ 300,000   \$ 300,000   \$ 300,000   \$ \$ 300,000   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 4 3 300,000 300,000 300,000 Year 4 5 - 5 - 6 - 7 Year 4 6 163,163 163,163	\$ 300,000 \$ 300,000 \$ 300,000 Year 5 \$ - \$ - \$ - \$ - \$ 163,163 \$ 163,163	per participant per participant per participant USD (Nominal) Cost Unit: per participant per participant per participant per participant per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (ag. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted
PARTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 1 300,000 \$ 300,000 \$ 300,000 \$ Year 1 - \$ - \$ - \$ \$ - \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$	300,000   300,00	Year 3 \$ 300,000   \$ 300,000   \$ 300,000   \$ \$ 300,000   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 4 3 300,000 3 300,000 Year 4 5 - 5 - 7 Year 4 163,163	\$ 300,000 \$ 300,000 \$ 300,000 Year 5 \$ - \$ - \$ - \$ - \$ 163,163 \$ 163,163 \$ 163,163	per participant per participant per participant USD (Nominal) Cost Unit: per participant USD (Nominal) Cost Unit: per participant per participant	projects that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation ra	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 1  300,000   \$ 300,000   \$ 300,000   \$  Year 1  -   \$ -	300,000   300,000   300,000   300,000   100,00	Year 3 \$ 300,000   1 \$ 300,000   1 \$ 300,000   1 \$ 300,000   1  Year 3 \$ -   1 \$ -   1 \$ 163,163   1  Year 3	Year 4 5 300,000 5 300,000 7 4 5 - 5 - 5 - 7 7 6 163,163 7 163,163 7 4 7 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	\$ 300,000 \$ 300,000 \$ 300,000 Year 5 \$ - \$ - \$ - \$ - \$ 163,163 \$ 163,163 \$ 163,163	per participant per participant per participant USD (Nominal) Cost Unit: per participant	orgical that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pillot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note I some pillots taking a Direct shatalf approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 1  300,000   \$ 300,000   \$ 300,000   \$  Year 1  -               -         -         -	300,000   300,000   300,000   1	Year 3 \$ 300,000   \$ 300,000   \$ 300,000   \$ \$ 300,000   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 4 \$ 300,000 \$ 300,000 Year 4 \$ - \$ - \$ - \$ - \$ 163,163 \$ 163,163 \$ 163,163 \$ 163,163 \$ 163,163	\$ 300,000 \$ 300,000 Year 5 \$ - \$ - \$ - \$ 163,163 \$ 163,163 \$ 163,163 \$ 163,163	per participant per participant per participant USD (Nominal) Cost Unit: per participant	orgical that were captured separately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (e.g. RA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pillot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Polic costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note I some pillots taking a Direct shatalf approach may see the utility covering all costs, with no upfront financial contribution from the participant.
PARTICIPANT PILOT COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Calculations & Other Explanation:  Escalation re	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 1  300,000   \$ 300,000   \$ 300,000   \$  Year 1  -               -         -         -	300,000   300,000   300,000   1	Year 3 \$ 300,000   \$ 300,000   \$ 300,000   \$ \$ 300,000   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 4 \$ 300,000 \$ 300,000 Year 4 \$ - \$ - \$ - \$ - \$ 163,163 \$ 163,163 \$ 163,163 \$ 163,163 \$ 163,163	\$ 300,000 \$ 300,000 Year 5 \$ - \$ - \$ - \$ 163,163 \$ 163,163 \$ 163,163 \$ 163,163	per participant per participant per participant USD (Nominal) Cost Unit: per participant USD (Nominal) Cost Unit: per participant	project that were captured spanately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (ag. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note to some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United.
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size C Description of source of external funding:  Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation re Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 1  300,000   \$ 300,000   \$ 300,000   \$  Year 1  -               -         -         -	300,000   300,000   300,000   1	Year 3 \$ 300,000   \$ 300,000   \$ 300,000   \$ \$ 300,000   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 4 \$ 300,000 \$ 300,000 Year 4 \$ - \$ - \$ - \$ - \$ 163,163 \$ 163,163 \$ 163,163 \$ 163,163 \$ 163,163	\$ 300,000 \$ 300,000 Year S \$ \$ \$ 163,163 \$ 163,163 Year S \$ 3,274 Year S \$ \$ 163,763 Year S \$ 163,763 Year S	per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant per p	project that were captured spanately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (ag. RA, etc) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Participant Pilot costs will be used in the Participant Cost tests for the NGIA evaluation criteria. Note to some pilots taking a Direct install approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United.
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation re  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size B Participant Non-Energy Costs, Size B Calculations & Other Explanation:  Escalation re  Escalation re  Escalation re	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 1  300,000   \$ 300,000   \$ 300,000   \$  Year 1  -   \$ -   \$ -   \$  Year 1  163,63   \$ 163,63   \$ 163,63   \$  Year 1  -   \$ -   \$  Year 1  Year 1  -   \$	300,000   300,000   300,000   300,000   Year 2   Year 3   Yea	Year 3 \$ 300,000   1 \$ 300,000   1 \$ 300,000   1 \$ 300,000   1 \$ 300,000   1 \$ 300,000   1 \$ 300,000   1 \$ 300,000   1 \$ 400,000   1 \$ 163,163	Year 4 3 300,000 3 300,000 3 300,000 Year 4 5	\$ 300,000 \$ 300,000 Year S \$ \$ \$ 163,163 \$ 163,163 Year S \$ 3,274 Year S \$ \$ 163,763 Year S \$ 163,763 Year S	per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant USD (Nominal) Cost Unit: per participant per year of pilot life [ (for each pilot analysis year)	projects that were captured spanately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (ag. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Others Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note town to total upfront project costs. Others Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note town to total upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS  PARTICIPANT NON- ENERGY COSTS	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation re  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation re  Participant Non-Energy Costs, Size A Participant Non-Energy Savings, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 1  300,000   \$ 300,000   \$ 300,000   \$  Year 1  -              -          -          -	300,000   300,000   300,000   300,000   300,000   400,000   300,000   400,00	Year 3 \$ 300,000   \$ 300,000   \$ 300,000   \$ 300,000    Year 3  3.82%	Year 4 \$ 300,000 \$ 300,000 \$ 300,000  Year 4 \$ - \$ \$ - \$ \$ 163,163 \$ 163,163 \$ 163,163  Year 4 \$ 3,82%  Year 4 \$ 3,82%	\$ 300,000 \$ 300,000 \$ 300,000 Year 5 \$ - \$ 163,163 \$ 163	per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant [ [for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life	projects that were captured spanately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (ag. RRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Direct Praticipant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note to some pilots taking a Direct hatall approach may see the utility covering all costs, with no upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United This includes any increased in costs like equipment operating costs or increased water costs. Participant Non-Energy Costs will be used in the Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS  PARTICIPANT NON-	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation re  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation re  Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 1  300,000   \$ 300,000   \$ 300,000   \$  Year 1  -              -          -          -	300,000   300,000   300,000   300,000   300,000   400,000   300,000   400,00	Year 3 \$ 300,000   \$ 300,000   \$ 300,000   \$ 300,000    Year 3  3.82%	Year 4 \$ 300,000 \$ 300,000 \$ 300,000  Year 4 \$ - \$ \$ - \$ \$ 163,163 \$ 163,163 \$ 163,163  Year 4 \$ 3,82%  Year 4 \$ 3,82%	\$ 300,000 \$ 300,000 \$ 300,000 Year 5 \$ - \$ 163,163 \$ 163	per participant per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant per year of pilot life	projects that were captured spanately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (ag. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Others Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note town to total upfront project costs. Others Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note town to total upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS  PARTICIPANT NON- ENERGY COSTS  PARTICIPANT NON-	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation re  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation re  Participant Non-Energy Costs, Size A Participant Non-Energy Savings, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 1  300,000   \$ 300,000   \$ 300,000   \$  Year 1  -              -          -          -	300,000   300,000   300,000   300,000   300,000   400,000   300,000   400,00	Year 3 \$ 300,000   \$ 300,000   \$ 300,000   \$ 300,000    Year 3  3.82%	Year 4 \$ 300,000 \$ 300,000 \$ 300,000  Year 4 \$ - \$ \$ - \$ \$ 163,163 \$ 163,163 \$ 163,163  Year 4 \$ 3,82%  Year 4 \$ 3,82%	\$ 300,000 \$ 300,000 \$ 300,000 Year 5 \$ - \$ 163,163 \$ 163	per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant [ [for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life	projects that were captured spanately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (ag. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Others Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note town to total upfront project costs. Others Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note town to total upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS  PARTICIPANT NON- ENERGY COSTS  PARTICIPANT NON-	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size B Direct Participant Pilot Costs, Size C Calculations & Other Explanation:  Escalation re  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation re  Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 1  300,000   \$ 300,000   \$ 300,000   \$  Year 1  -              -          -          -	300,000   300,000   300,000   300,000   300,000   400,000   300,000   400,00	Year 3 \$ 300,000   \$ 300,000   \$ 300,000   \$ 300,000    Year 3  3.82%	Year 4 \$ 300,000 \$ 300,000 \$ 300,000  Year 4 \$ - \$ \$ - \$ \$ 163,163 \$ 163,163 \$ 163,163  Year 4 \$ 3,82%  Year 4 \$ 3,82%	\$ 300,000 \$ 300,000 \$ 300,000 Year 5 \$ - \$ 163,163 \$ 163	per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant [ [for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life	projects that were captured spanately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (ag. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Others Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note town to total upfront project costs. Others Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note town to total upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS  PARTICIPANT NON- ENERGY COSTS  PARTICIPANT NON-	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C Third Party Funding, Size A Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size A Participant Non-Energy Savings, Size A Participant Non-Energy Savings Pilot Tech, Size A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 1  300,000   \$ 300,000   \$ 300,000   \$ 300,000   \$  Year 1  - \$ - \$ - \$ - \$ - \$  Year 1  163,63   \$ 163,63   \$ 163,63   \$  Year 1  - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	300,000   300,000   300,000   300,000   300,000   Year 2   3,82%   Year 3   3,82%   Year 3   3,82%   Year 4   3,82%   Year 5   3,82%   Year 6   3,82%   Year 7   3,82%   Year 8   3,82%   Year 9   3,82%   Year 9	Year 3 \$ 300,000   \$ 300,000   \$ 300,000   \$ 300,000    Year 3  3.82%	Year 4 \$ 300,000 \$ 300,000 \$ 300,000  Year 4 \$ - \$ \$ - \$ \$ 163,163 \$ 163,163 \$ 163,163  Year 4 \$ 3,82%  Year 4 \$ 3,82%	\$ 300,000 \$ 300,000 \$ 300,000 Year 5 \$ - \$ 163,163 \$ 163	per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant [ [for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life	projects that were captured spanately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (ag. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Others Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note town to total upfront project costs. Others Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note town to total upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United Participant Cost tests for the NGIA evaluation criteria.
PARTICIPANT PILOT COSTS  PARTICIPANT NON- ENERGY COSTS  PARTICIPANT NON-	Total Pilot Upfront Costs, Size A Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size B Total Pilot Upfront Costs, Size C  Third Party Funding, Size A Third Party Funding, Size B Third Party Funding, Size B Third Party Funding, Size B Direct Participant Pilot Costs, Size A Direct Participant Pilot Costs, Size B Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation ra  Participant Non-Energy Costs, Size A Participant Non-Energy Costs, Size C Calculations & Other Explanation:  Escalation ra  Participant Non-Energy Savings, Size A Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size B Participant Non-Energy Savings, Size C Calculations & Other Explanation.	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Year 1  300,000   \$ 300,000   \$ 300,000   \$  Year 1  -                -              -	300,000   300,000   300,000   300,000   300,000   Year 2   3,82%   Year 3   3,82%   Year 3   3,82%   Year 4   3,82%   Year 5   3,82%   Year 6   3,82%   Year 7   3,82%   Year 8   3,82%   Year 9   3,82%   Year 9	Year 3 \$ 300,000   \$ 300,000   \$ 300,000   \$ 300,000    Year 3  3.82%	Year 4 \$ 300,000 \$ 300,000 \$ 300,000  Year 4 \$ - \$ \$ - \$ \$ 163,163 \$ 163,163 \$ 163,163  Year 4 \$ 3,82%  Year 4 \$ 3,82%	\$ 300,000 \$ 300,000 \$ 300,000 Year 5 \$ - \$ 163,163 \$ 163	per participant per participant per participant per participant USD (Nominal) Cost Unit: per participant [ [for each pilot analysis year)  USD (Nominal) Cost Unit: per participant per year of pilot life	projects that were captured spanately above). This cost does not account for what portion of costs may be covered by utility incentives, nor include utility program admin costs.  If there are expectations for external funding sources (ag. IRA, etc.) account for those values here. This funding is noted here for reference, it's not used to calculate any of the NGIA evaluation criteria.  This represents the upfront costs to participants who participate in this pilot. This is a calculated value, where utility incentives are subtracted from the total upfront project costs. Others Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note town to total upfront project costs. Others Participant Plot costs will be used in the Participant Cost tests for the NGIA evaluation criteria Note town to total upfront financial contribution from the participant.  For an escalation rate, we use the average of the 12-month percentage change in the "all items" consumer price index available from the United Participant Cost tests for the NGIA evaluation criteria.

	Calculations & Other Explanation:						
NATURAL GAS ENERGY SAVINGS: AVG. Dth/ PARTICIPANT SAVED	Avg. Dth/Participant Saved, Size A Avg. Dth/Participant Saved, Size B Avg. Dth/Participant Saved, Size C Calculations & Other Explanation:		5,474 Dth/Participant 5,474 Dth/Participant 5,474 Dth/Participant				
AVG. NON-GAS FUEL UNITS/ PART.	Avg. Non-Gas Fuel Units/Part. Saved, Size A Avg. Non-Gas Fuel Units/Part. Saved, Size B Avg. Non-Gas Fuel Units/Part. Saved, Size C  Avg. Additional Non-Gas Fuel Units/Part.Used, Size A Avg. Additional Non-Gas Fuel Units/Part.Used, Size B Avg. Additional Non-Gas Fuel Units/Part.Used, Size C  Calculations & Other Explanation:		O.00 kWh/Participant O.00 kWh/Participant O.00 kWh/Participant 76,107 kWh/Participant 76,107 kWh/Participant 76,107 kWh/Participant 76,107 kWh/Participant			ts/Part. Saved will be used in the Participant C The Participant of the Participant of th	ost tests for the NGIA evaluation criteria.
TOTAL ANNUAL Dth SAVED	Total Annual Dth Saved, Size A Total Annual Dth Saved, Size B Total Annual Dth Saved, Size C Calculations & Other Explanation:	Year 1	Year 2           5,474         5,477           10,947         10,947           16,421         16,421	5,474 10,947	Sear 4   Year 5   S.474   S.		Natural gas energy sovings that result from multiplying sovings per participant times the total number of new participants in a given year
GRID MIX Scenario	Grid Mix Scenario  Calculations & Other Explanation:	NPEL		Select one of the listed grid mix sce Utilities shall use electric-utility-sp. Maticael Departs Especial should	-	he renewable natural gas facility when it is reasonamentable natural one facility is union a binhar	sonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from
INTENSITY BY	This section does not apply to all pilot types. The GHG changes from a Lifecycle GHG intensity, Size A Low Expected High Lifecycle GHG intensity, Size B Low Expected High Lifecycle GHG intensity, Size C Low Expected High	Year 1  Year 1  Year 1  Year 1	Year 2  OOO OO  Year 2  OOO OO  Year 2  OOO OO  Year 2	Year 3 Y	ear 4 Year 5 k 0.00 0.00 k ear 4 Year 5 k 0.00 0.00 k ear 4 Year 5 k 0.00 0.00 0.00 k	ycle GHG savings (e.g. RNG, hydroge g CO2e/participant g CO2e/participant	In, carbon capture) this section accounts for the lifecycle change in GHG emissions (per unit of participation).  Utilities shall file a high low and espected greenhouse gas intensity for innovative resources included in a proposed Natural Gas knowation Act innovation (NGAI) plan where applicable right and low accessive shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Expected greenhouse gas intensity values will be used in cost-benefit calculations and when determining the expected greenhouse gas reduction of pilot programs and NGIA plans.
OTHER PILOT-SPECI	FIC PARAMETERS (formerly 'General Parameters' in CIP Calculator):						
PEAK REDUCTION FACTOR	Peak Reduction Factor <u>Calculations &amp; Other Explanation:</u>		1% The estimated average annual of Cost tests for the NGIA evaluat	effect of the project on system peak. It ion criteria.	is estimated to be 7% for energy effic	iency pilots. The method for other innovative r	esources should be considered in the context of specific utility proposals. Peak Reduction Factor will be used in the Utility Cost and Non Participant
VARIABLE O&M	Variable O&M Cost, Applies to all project sizes <u>Calculations &amp; Other Explanation:</u> Escalat	Values now linked directly back to planning.  Year 1  Year 1  Year 1  To note the first to the f	100   100	\$ 0.04 \$ Year 3	Year 4 Year 5 U	ISD (Nominal) Cost Unit: er Dth for each pilot analysis year)	The CP methodology is used for energy efficiency. However, the value for other innovative resources should be considered in the context of specific utility proposals. For example, resources like power-to-hydrogen and RNG may not decrease C&M costs as they also need to be transported to customers on the distribution systems. Variable C&M will be used in the Utility Cost and Non-Participant Cost tests for the NGL evaluation criteria. Note to calculate this metric, you can make one cost estimate for year 1 and then use the escalation rate to estimate each Annual Escalation Rate calculated using the average percent charge in the price of natural gas between 2023 through 2027 to all users in the W
NON-GAS FUEL COST	Non-Gas (i.e., Electric) Fuel Cost Calculations & Other Explanation:	\$	USD (Nominal) Cost Unit	The CIP methodology is used for all			n should be considered in the context of specific utility pilot proposals. 1, 2022 to December 31, 2022 using data from Midwest independent System Operator (MISO)
NON-GAS FUEL LOSS FACTOR	Non-Gas Fuel Loss Factor <u>Calculations &amp; Other Explanation</u> :		8.22%	The CIP methodology is used for all loss factors reported by Minnesota in the control of the con	resources other than strategic electric Power, Xcel Energy, and Otter Tail Po	flication. The method for strategic electrification wer's reported 2021 transmission and distribut	n should be considered in the context of specific utility pilot proposals. In the most recent CIP, Staff used the weighted average of the most recent tion loss factors and weighting by the utilities '2017-2019 average retail sales

OTHER QUANTITATIV	/E CRITERIA:										
				USD Cost Unit:							
	Other Non-GHG Pollutants, Size A	\$	0.37	per Dth	Generally no change from 0	CIP methodology. The fa	ctor is calculated	using the final environmental cost values approved by	y Minnesota Public Utilities Com	nission (Commission). The factors	are reported in 2021 dollars in Table 2 below, which were calculated by inflating allowing utilities to select different externality values for pilots targeting specific
OTHER NON-GHG	Other Non-GHG Pollutants, Size B	\$		per Dth	geographies or population	s. For example, an energ	v efficiency projec	t that targets an urban area might use the urban va	ue rather than the metropolitan fr	inge value. Similarly, a project targ	eting a low-income population might use a high value rather than the median.
POLLUTANTS	Other Non-GHG Pollutants, Size C	\$	0.37	per Dth	Utilities can make deviation Docket No. E0999/CI-14-64	ns such as these in their 13, utilities may use the	NGIA plans if they value most applica	can provide justification for the change. Instead of ble for the pilot or measure.	requiring the use of median metro	politan fringe values for all non-Gi	HG pollutants, as shown in Table 1 of the Commission's January 3, 2018 Order in
	Calculations & Other Explanation:			*	<b></b>						
	Calculations & Other Explanation:										
			Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life		
	Net Direct Job Creation, Size A Net Direct Job Creation. Size B			2	2 2	2 2		2	10	0 # of jobs 0 # of jobs	Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.
	Net Direct Job Creation, Size C		4	1	5 5	5 5		6	25	31 # of jobs	
			Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life		
	Net Indirect Job Creation, Size A Net Indirect Job Creation, Size B			1	1 2	1 1		1	6	6 # of jobs 13 # of jobs	Utilities should consider both jobs created by proposed pilots and jobs the may be eliminated by proposed pilots.
	Net Indirect Job Creation, Size C		3	3	3 3	3		4	15	# of jobs	
ET JOB CREATION			Year 1	Year 2	Year 3	Year 4	Year 5	Total during 5 program years	Remainder of project life	<u> </u>	
	Net Induced Job Creation, Size A Net Induced Job Creation, Size A			1	1	1 1		1	6	6 # of jobs 13 # of jobs	
	Net Induced Job Creation, Size A			3	3 3	3 3		4	16	0 # of jobs	
										<del>_</del>	
	Calculations & Other Explanation:										
	Calculations & Other Explanation:										
	Job numbers are estimated as Full Time Equivalents (FTE) and are rounded off.										
			Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit:			
	Public Co-Benefits, Size A Public Co-Benefits, Size B	\$	-	\$ -	- \$ -	\$ -	\$ -	per year per year	Quantifiable in some cases. I Considerations section below	this metric isn't quantifiable, then	e is space for any qualitative comments in the Additional Qualitative
PUBLIC CO-	Public Co-Benefits, Size B	\$	-	\$ -	- \$ -	\$ -	\$ -	per year per year	Considerations section below		
BENEFITS					<del>'</del>	<del>'                                    </del>		•	<del></del>		
	Calculations & Other Explanation:										
	Water Pollution, Size A	•	Year 1	Year 2	Year 3	Year 4	Year 5	USD (Nominal) Cost Unit: per year	=		nefits on water pollution. This might be quantifiable for some of the projects. If
	Water Pollution, Size B	\$	-	\$ -	- \$ -	\$ -	\$ -	per year	this metric isn't quantifiable,	pen to quantify any costs and ber there is space for any qualitative o	comments in the Additional Qualitative Considerations section below.
VATER POLLUTION	Water Pollution, Size C	\$	-	\$ -	- \$ -	\$ -	\$ -	per year			
	Calculations & Other Explanation:										
	<u>Galediations &amp; Galet Expanditors</u>										
DDITIONAL QUALIT	ATIVE CONSIDERATIONS:										
GIA Utility erspective Notes:											
	It is expected that most of the utility perspective costs and benefits will be										
efinition:	quantifiable with and should be heavily informed by the structural values and CIP quantification methods.										
IA Participants'											
rspective Notes:											
finition:	It is expected that many of the elements of the participant perspective, with re in a home and health benefits from pilots that improve indoor air quality are tw	espect to the direct effect to examples of benefits t	t of pilots, will be quantifiabl hat may be difficult to quant	e and will rely on the struc tify.	tural values. Add here any	information related	to some direc	t effects of pilots on participants that may	not be easily quantifiable. F	or example, increased comfo	
	May assist MN businesses in achieving GHG goals		, , , , , , , , , , , , , , , , , , , ,								
ilA											
IA nparticipating											
stomers'											
rspective Notes:	As with the utility perspective, the direct effects of pilot programs on non-										
	As win the unity perspective, the anect enects of plut programs of from participating customers should be quantified in most cases and can be heavily informed by structural values.										
efinition:	informed by structural values.										

Effects on Other Energy Systems		
Energy Systems and Energy Security: Definition:		
Security:		
Definition:	NGIA invites the Commission to consider how innovative resources fit into the energy system with a broader perspective than effects on the gas utility and its customers. Measures like strategic electrification specifically require gas utilities and the Commission to avoid negative effects on the electric system.	
	Further, the NGIA empowers the Commission to consider a wide variety of "costs and benefits that may be expected under a plan," one of which is a reduction of reliance on imported resources and national fuel markets.	
	Reduces overall energy consumption	
GHG Emissions		
Notes: Definition:		
Definition:	An innovation plan must include the total lifecycle GHG emissions that the utility projects will be reduced or avoided through implementing the plan. This benefit should be generally quantifiable using the Commission-approved GHG accounting framework and GHG externality values. Note that this row also calls for discussion of any environmental justice effects of the pilot related to GHG emissions, these may not be quantifiable.	
	decoded of all years of market plants of the state at our of ministers, these tray into the approximate.	
Other Pollution Notes:		
Notes: Definition:		
Demindon.	Include any additional non-GHG environmental costs and benefits. For example, effects on water pollution that may not be quantifiable, or specific air quality benefits to a low income community. Note that this also calls for discussion of any environmental justice effects of the pilot related to non-GHG pollution.	
Waste Reduction and Reuse Notes:		
and neade nates.	Waste reduction, reuse, and anaerobic digestion are goals of the NGIA. Includes	
Definition:	reduction of water use.	
Policy Notes:		
Folicy Notes:	NGIA is intended to help the state achieve certain environmental policy goals	
	including geologic gas throughput reduction and increased use of renewable	
Definition:	resources.  Reduces fossil gas throughput; increases use of renewable energy	
	neutros tosa gas unrugiput, increases use or renewative energy	
Net Job Creation		
Net Job Creation Notes:		
	An innovation plan must include as applicable, "projected local job impacts equilibration in professions of the plant I tilities a bould consider both into	
	An imnovation plan must include, as applicable, "projected local job impacts resulting from implementation of the plan." Utilities should consider both jobs created by projected plots and jobs that may be eliminated by proposed pilots.	
Notes:	resulting from implementation of the plan." Utilities should consider both jobs	
Notes:	resulting from implementation of the plan." Utilities should consider both jobs	
Notes: Definition:	resulting from implementation of the plan." Utilities should consider both jobs	
Notes: Definition:	resulting from implementation of the plan." Utilities should consider both jobs	
Notes:  Definition:  Economic Development	resulting from implementation of the plan." Utilities should consider both jobs	
Notes: Definition:	resulting from implementation of the plan." Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.  The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide	
Notes:  Definition:  Economic Development	resulting from implementation of the plan." Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.	
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Notes:  Definition:  Economic Development Notes: Cerimitor:  Public Co-Benefits. Notes:	resulting from implementation of the plan." Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.  The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.	
Notes:  Definition:  Economic Development Notes: Definition:  Public Co-Benefits:	resulting from implementation of the plan." Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.  The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.	
Notes:  Definition:  Economic Development Notes: Cerimitor:  Public Co-Benefits. Notes:	resulting from implementation of the plan." Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.  The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.	
Notes:  Definition:  Economic Development Notes: Cerimitor:  Public Co-Benefits. Notes:	resulting from implementation of the plan." Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.  The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.	
Notes:  Definition:  Economic Development Notes: Cerimitor:  Public Co-Benefits. Notes:	resulting from implementation of the plan." Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.  The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.	
Definition:  Economic Development Notes: Definition:  Public Co-Benefits Notes: Definition:	resulting from implementation of the plan." Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.  The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.	
Cefinition:  Economic Development Notes: Definition:  Public Co-Benefits Notes: Definition:	resulting from implementation of the plan." Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.  The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.	
Definition:  Economic Development Notes: Definition:  Public Co-Benefits Notes: Definition:	resulting from implementation of the plan.* Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.  The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.  There may be public benefits for certain pilots. For example, the NGA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.	
Cefinition:  Economic Development Notes: Definition:  Public Co-Benefits Notes: Definition:  Market Development Notes: Definition:	resulting from implementation of the plant. "Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots."  The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.  There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.  The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of elementive agricultural products, as well as the geographic areas of the state where benefits are realized.	
Cefinition:  Economic Development Notes: Definition:  Public Co-Benefits Notes: Definition:  Market Development Notes: Definition:	resulting from implementation of the plan.* Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots.  The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development, but economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.  There may be public benefits for certain pilots. For example, the NGA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.	
Cefinition:  Economic Development Notes: Definition:  Public Co-Benefits Notes: Definition:  Market Development Notes: Definition:	resulting from implementation of the plant. "Utilities should consider both jobs created by proposed pilots and jobs that may be eliminated by proposed pilots."  The Commission must make a finding that the innovation plan "promotes local economic development." Creation of jobs is a form of economic development is broader. For example, pilots that pay workers a living wage or support apprenticeships or training opportunities would provide additional economic benefits.  There may be public benefits for certain pilots. For example, the NGIA is intended to help support wastewater treatment and organics recycling. This category could also include odor effects on Minnesota communities – either reductions in unpleasant odors or increased odor problems.  The NGIA supports the development of new markets or expansion of markets in Minnesota. For example, utilities are required to describe whether proposed plans support the development of elementive agricultural products, as well as the geographic areas of the state where benefits are realized.	
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Resource
Scalability and Role
in a Decarbonized
System Notes:
Definition:

While NGIA pilots may have small impacts in the near-term, stakeholders felt it was important for the Commission to consider the potential importance of each resource in a decarbonized energy system. The NGIA requires the Commission to consider changes to natural gas utility and regulatory policy structures needed to meet or exceed Minnesota's GHG reduction goals. NGIA pilots should provide valuable information to the Commission as it considers the energy future of the state.