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May 2, 2022

Mr. Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 Seventh Place East, Suite 350
St. Paul, MN 55101-2147

Mr. Kevin Lee
Deputy Commissioner
Division of Energy Resources
Minnesota Department of Commerce
85 Seventh Place East, Suite 500
St. Paul, MN 55101-2198

Re: Docket No. G004/M-22-____
CIP Tracker and Demand Side Management
Incentive

Docket No. G004/CIP-20-477
2021 Conservation Improvement Program
Status Report

Dear Mr. Seuffert and Mr. Lee:

Great Plains Natural Gas Co. (Great Plains), a Division of Montana-Dakota Utilities Co., herewith electronically files its 2021 Conservation Improvement Program (CIP) Status Report for the period of January 1, 2021 through December 31, 2021, its 2021 Conservation Improvement Program (CIP) Tracker filing (CCRA), and the Demand Side Management (DSM) Incentive for the period of January 1, 2021 through December 31, 2021.

The 2021 CIP expenditures were \$461,682, which exceeds the minimum spending requirement of \$139,710, and represents approximately 46 percent of the authorized budget for 2021, as established by Decision of the Deputy Commissioner, Department of Commerce on November 24, 2020. Great Plains' programs provided total annual energy savings of 15,154 dk, which was approximately 25 percent of the authorized level. The total lifetime energy reduction related to the 2021 CIP projects is 197,002 dk. The variance in expenditures and energy savings from the authorized portfolio expenditures for 2021 is primarily attributable to low participation in the Custom Projects. Although natural gas commodity prices have risen in 2021, the timeframe is so recent that customers have not yet had time to respond to the prices by taking part in

Custom Projects. Excluding Custom Projects, 2021 expenditures were at approximately 76 percent of the budgeted expenditures with energy savings at approximately 95 percent of the authorized level.

Pursuant to the Commission's Order issued on November 23, 2016, in Docket No. G004/M-16-384, Great Plains has calculated the CCRA based on the existing tracker balance, as well as the projected sales, expenditures, financial incentive, and any pertinent adjustments that may occur over the period the CCRA will be in place. Carrying charges are calculated at the short-term debt cost authorized in Great Plains' most recent rate cases, Docket Nos. G004/GR-15-879 and G004/GR-19-511. There was no financial incentive achieved for 2021. Please see Attachment D, page 4 for a summary of the projected CIP tracker activity and ending balance on August 2023.

The CIP Tracker filing reflects a proposed CCRA of \$0.0805 per dk, which is a decrease of \$0.0090 per dk from the current CCRA. For a typical residential customer using 77.6 dk per year, this reflects a decrease of \$0.70 annually or \$0.06 per month. Great Plains requests that the proposed CCRA be implemented September 1, 2022. Attachment A provides the Conservation Improvement Program Adjustment Clause tariff, 2nd Revised Sheet No. 5-111.

Great Plains DSM Financial Incentive did not meet the considerations required pursuant to Minnesota Statute, Section 216B.16. The energy saved and net benefit derived from Great Plains' 2021 CIP program do not qualify the Company to receive an incentive for the 2021 CIP program year, pursuant to Docket No. E,G-999/CI-08-133, Order Adopting Modifications to Shared Savings Demand-Side Management Financial Incentive Plan.

This filing includes the 2021 CIP Status Report, CIP Tracker filing, and CIP Demand-Side Management Incentive filing with all supporting attachments.

Please refer all inquiries regarding this filing to:

Mr. Travis R. Jacobson
Director of Regulatory Affairs
Great Plains Natural Gas Co.
400 North Fourth Street
Bismarck, ND 58501

Great Plains respectfully requests this filing be accepted as being in full compliance with the filing requirements of this Commission and the Department of Commerce.

Sincerely,

/s/ Travis R. Jacobson
Travis R. Jacobson
Director of Regulatory Affairs

cc: Brian M. Meloy

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**GREAT PLAINS NATURAL GAS CO.
2021 CONSERVATION INCENTIVE PROGRAMS (CIP) STATUS REPORT**

Pursuant to Minnesota Statute 7690.0550 and the Minnesota Department of Commerce, Division of Energy Resources (Department) November 24, 2020 Decision on the 2021-2023 CIP Triennial Filing in Docket G004/CIP-20-477, Great Plains submits this status report on its Conservation Improvement Program (CIP). This report covers the 2021 CIP year: January 1, 2021 through December 31, 2021.

I. Overall Summary:

The approved 2021 budget for the CIP was \$996,619, while Great Plains' actual expenditures for the twelve-month period ending December 31, 2021 were \$461,682, which exceeds the minimum spending requirement of \$139,710. The low-income expenditures of \$55,990 does exceed the minimum spending requirement of \$47,263 based on the methodology established in the 2013 legislation. Please see Attachment B for a summary of the details of the expenditures, participants, and decatherm (dk) savings for 2021.

Great Plains achieved 46.3 percent of its total expenditure goal and 32.1 percent of its Low-income expenditure goal, as demonstrated below:

	Authorized 1/	Expenses Actual	Difference	Percent of Authorized
<u>Residential Programs</u>				
Space Heating Equipment	\$199,653	\$225,745	\$26,092	113.1%
Water Heating Equipment	16,276	12,558	(3,718)	77.2%
Attic Insulation	219	0	(219)	0.0%
Pilotless Fireplace	219	0	(219)	0.0%
Residential Energy Assessment	23,741	4,353	(19,388)	18.3%
Total Residential Programs	\$240,108	\$242,656	\$2,548	101.1%
<u>Low Income Programs</u>				
Weatherization	\$103,196	\$31,624	(\$71,572)	30.6%
Furnace and Boiler Replacement	70,229	24,366	(45,863)	34.7%
Furnace and Boiler Tune-Up	1,032	0	(1,032)	0.0%
Hot Water Heater Temp Set-Back	0	0	0	0.0%
Total Low Income Programs	\$174,457	\$55,990	(\$118,467)	32.1%
<u>Commercial and Industrial Programs</u>				
Commercial Space Heating Equipment	\$50,429	\$68,801	\$18,372	136.4%
Commercial Water Heating Equipment	1,846	6,198	4,352	335.8%
Commercial Boiler Equipment	6,699	3,320	(3,379)	49.6%
Commercial Food Service	2,638	0	(2,638)	0.0%
Commercial Custom	474,981	63,864	(411,117)	13.4%
Commercial Building Certification	5,278	0	(5,278)	0.0%
Commercial Energy Assessment	6,266	0	(6,266)	0.0%
Industrial Energy Assessment	7,917	0	(7,917)	0.0%
Total Commercial and Industrial Programs	\$556,054	\$142,183	(\$413,871)	25.6%
Direct Assessment Charges	26,000	20,853	(5,147)	80.2%
Grand Total of All Programs	\$996,619	\$461,682	(\$534,937)	46.3%

1/ 2021-2023 Conservation Improvement Program Triennial approved by the MN DOC on November 24, 2020 in Docket No. G004/CIP-20-477.

The actual 2021 Residential expenditures, including administration expenses, were 101.1 percent of the budgeted expenditure goal. The primary reason for the increase in this program's expenditures is due to participation in Space Heating Equipment, which was 99.7 percent of authorized participation and 113.1 percent of budgeted expenditures. The variance in participation and expenditures in the Residential Program is largely offset by the lower than authorized participation and expenditures in the Low Income and Commercial and Industrial Programs. Total Portfolio expenditures were 46.3 percent of authorized and participation was 71.9 percent of authorized.

The variance from the authorized total portfolio expenditures for 2021 is primarily attributable to the lower participation in the Custom Projects. Although natural gas commodity prices have risen in 2021, the timeframe is so recent that customers have not yet had time to respond to the prices by taking part in Custom Projects. Excluding these line items, 2021 expenditures were approximately 76 percent of the budgeted expenditures.

Great Plains achieved 24.9 percent of its 2021 authorized dk savings target.

	Dk Savings			Percent of
	Authorized 1/	Actual	Difference	Authorized
<u>Residential Programs</u>				
Space Heating Equipment	7,798	8,643	845	110.8%
Water Heating Equipment	594	331	(263)	55.7%
Attic Insulation	7	0	(7)	0.0%
Pilotless Fireplace	9	0	(9)	0.0%
Residential Energy Assessment	0	0	0	0.0%
Total Residential Programs	8,408	8,974	566	106.7%
<u>Low Income Programs</u>				
Weatherization	533	92	(441)	17.3%
Furnace and Boiler Replacement	323	237	(86)	73.4%
Furnace and Boiler Tune-Up	19	0	(19)	0.0%
Hot Water Heater Temp Set-Back	14	0	(14)	0.0%
Total Low Income Programs	889	329	(560)	37.0%
<u>Commercial and Industrial Programs</u>				
Commercial Space Heating Equipment	2,771	2,251	(520)	81.2%
Commercial Water Heating Equipment	26	401	375	1542.3%
Commercial Boiler Equipment	570	314	(256)	55.1%
Commercial Food Service	262	0	(262)	0.0%
Commercial Custom	48,000	2,885	(45,115)	6.0%
Commercial Building Certification	0	0	0	0.0%
Commercial Energy Assessment	0	0	0	0.0%
Industrial Energy Assessment	0	0	0	0.0%
Total Commercial and Industrial Programs	51,629	5,851	(45,778)	11.3%
Direct Assessment Charges				
Grand Total of All Programs	60,926	15,154	(45,772)	24.9%

1/ 2021-2023 Conservation Improvement Program Triennial approved by the MN DOC on November 24, 2020 in Docket No. G004/CIP-20-477.

The overall dk savings achieved was 15,154 dk, which is less than the authorized goal of 60,926 dk for the year. The shortfall in actual dk savings from the authorized 2021 portfolio savings is attributable to the minimal participation in the Custom Projects. Excluding these line items, 2021 dk savings were approximately 95 percent of the authorized dk savings.

In summary:

- The Commercial and Industrial Programs provided a decrease in savings of 5,251 dk compared to last year.
- The Custom Program did have four participants in 2021; however, savings decreased 3,055 dk from last year.
- The total portfolio cost per dk increased from \$24.51 in 2020 to \$30.47 in 2021.

Great Plains plans to build upon its program successes in the Commercial and Industrial Programs, and to continue marketing its programs through its website, targeted online advertising, bill inserts, and other marketing media as appropriate. Great Plains' CIP Program Manager will continue to work directly with the local contractor network on program awareness and education and will continue to seek opportunities to engage customer involvement in the Commercial Custom Program.

The cost per dk for the total portfolio is \$30.47 per dk or \$14.11 per dk above the authorized level, as shown in the table below. The primary driver for the cost per dk increase is the Weatherization, Commercial Space Heating Equipment, and Custom Programs. The total cost per dk saved below for Residential and Low Income Programs were lower than authorized and Commercial and Industrial Programs was higher than authorized with an overall higher than authorized cost per dk saved for total programs.

The authorized and actual cost per dk saved are:

	Cost per Dk Saved			Percent of
	Authorized 1/	Actual	Difference	Authorized
<u>Residential Programs</u>				
Space Heating Equipment	\$25.60	\$26.12	\$0.52	102.03%
Water Heating Equipment	27.40	37.94	10.54	138.47%
Attic Insulation and Bypass	31.29	0.00	(31.29)	0.00%
Pilotless Fireplace	24.33	0.00	(24.33)	0.00%
Residential Energy Assessment	0.00	0.00	0.00	0.00%
Total Residential Programs	28.56	27.04	(1.52)	94.68%
<u>Low Income Programs</u>				
Weatherization	193.61	343.74	150.13	177.54%
Furnace and Boiler Replacement	217.43	102.81	(114.62)	47.28%
Furnace and Boiler Tune-Up	54.32	0.00	(54.32)	0.00%
Total Low Income Programs	196.24	170.18	(26.06)	86.72%
<u>Commercial and Industrial Programs</u>				
Space Heating Equipment	\$18.20	\$30.56	\$12.36	167.91%
Water Heating Equipment	71.00	15.46	(55.54)	21.77%
Commercial Boiler Equipment	11.75	10.57	(1.18)	89.96%
Commercial Food Service	10.07	0.00	(10.07)	0.00%
Commercial Custom	9.90	22.14	12.24	223.64%
Commercial Building Certification	0.00	0.00	0.00	0.00%
Commercial Energy Assessment	0.00	0.00	0.00	0.00%
Industrial Energy Assessment	0.00	0.00	0.00	0.00%
Total Commercial and Industrial Programs	\$10.77	\$24.30	\$13.53	225.63%
Total Programs 2/	\$16.36	\$30.47	\$14.11	186.25%

1/ 2021-2023 Conservation Improvement Program Triennial approved by the MN DOC on November 24, 2020 in Docket No. G004/CIP-20-477.

The total portfolio and each program that had participation were cost effective with a Utility Cost Test ratio of 1.00 or greater, with the exception of the Low-Income and Commercial Boiler Equipment Programs. The results of the cost/benefit analysis are shown below:

	<u>RIM</u>	<u>Utility</u>	<u>Societal</u>	<u>Participant</u>
Residential				
Space Heating Equipment	0.51	2.06	1.41	1.67
Water Heating Equipment	0.45	1.31	0.74	1.15
Attic Insulation and Bypass 1/	---	---	---	---
Pilotless Fireplace 1/	---	---	---	---
Residential Energy Assessment	0.00	0.00	0.00	1.46
Total Residential Portfolio	0.50	1.99	1.37	1.65
Low Income				
Weatherization	0.18	0.25	0.53	2.42
Furnace Replacement	0.44	1.31	2.29	3.18
Furnace/Boiler Tune-up 1/	---	---	---	---
Hot Water Heater Temp Set-back 1/	---	---	---	---
Total Low Income Portfolio	0.29	0.51	1.03	2.83
Commercial and Industrial				
Space Heating Equipment	0.58	2.82	3.03	3.62
Water Heating Equipment	0.62	4.29	3.11	3.67
Commercial Boiler Equipment	0.40	0.89	0.20	0.28
Foodservice Equipment 1/	---	---	---	---
Custom Program	0.50	2.17	0.54	0.56
Building Certification Program 1/	---	---	---	---
Commercial Energy Assessment 1/	---	---	---	---
Industrial Energy Assessment 1/	---	---	---	---
Total Commercial & Industrial Portfolio	0.51	2.29	1.00	1.02
Total Portfolio	<u>0.47</u>	<u>1.57</u>	<u>1.03</u>	<u>1.25</u>

1/ No participants.

The BENCOST Summary for Great Plains' overall CIP program for 2021, as well as the summary for each program is provided as Attachment C.

Great Plains did not have any expenditures related to research and development, distributed and renewable generation projects or evaluation.

Program Modifications

Great Plains has not submitted a modification to its 2021-2023 Triennial Plan.

II. Status Report by Project:

Residential Programs

1. Residential Space Heating Program

Great Plains offers a three-tiered rebate plan (\$15, \$50, or \$75 depending on features) for installation of programmable thermostats, a \$300 rebate for a 94 percent AFUE or greater furnace, a \$400 rebate for a 96 percent AFUE or greater furnace, a \$300 rebate for a boiler 84 percent AFUE or greater, a \$500 rebate for a 91 percent AFUE or greater boiler, and a \$50 rebate for a furnace or boiler tune-up. The program is available to residential customers.

The Space Heating Program overall achieved 99.7 percent of the participant goal and achieved 110.8 percent of its energy savings goal. The rebates for replacement of higher efficiency furnaces (96 percent AFUE or greater) and high efficiency boilers (91 percent AFUE or greater) exceeded the authorized level, which indicates that customers are interested in the higher efficiency appliances.

Great Plains tracked the number of rebates provided for installation in new homes versus for replacement equipment and type of dwelling information. Replacement equipment accounted for 94 percent of participants with 6 percent of participants representing new home construction. Great Plains has historically experienced low residential new construction growth in its service territory and expects the trend to continue.

Single family homes made up 95 percent of participants, duplexes represented 3 percent, town house and condos 1 percent and all other 1 percent of participants.

2. Water Heating Equipment Upgrade Incentive Program

Great Plains provides a \$100 rebate for the installation of an ENERGY STAR rated natural gas water heater, and a \$250 rebate for an ENERGY STAR rated tankless natural gas water heater. This program also includes a free low-flow shower head kit upon request to customers that have natural gas water heating.

Great Plains achieved 55.7 percent of authorized dk savings with 77.2 percent of authorized expenditures and 49.9 percent of authorized participation levels in 2021. Both of the Water Heating and Tankless Water Heating Programs exceeded the authorized dk savings in 2021. Low Flow Showerhead Program underperformed authorized participation and dk savings levels.

3. Residential Attic Insulation

The Residential Attic Insulation Program provides a cash rebate up to 50% of the projects costs, with a maximum of a \$150 rebate to customers for the installation of attic insulation. A Residential Energy Assessment is required prior to being eligible for this program.

In 2021, Great Plains had no participants in this program.

4. Pilotless Fireplace

The Residential Pilotless Fireplace Program is a program that offers residential customers a \$75 rebate for the installation of a qualifying pilotless natural gas fireplace.

In 2021, Great Plains had no participants in this program.

5. Residential Energy Assessment

Great Plains offers residential customers, whose primary heat source is natural gas, a comprehensive energy assessment, which includes analyses and recommendations on ways to increase energy efficiency in existing residential homes. Customers are charged a co-pay of \$50, while low-income customers are not charged for an audit. In addition to the audit, customers receive weatherization materials valued at approximately \$10 which include weather stripping, caulk and a caulking gun, a filter whistle, outlet and switch plate gaskets and energy educational information.

The energy assessments are performed by state certified auditors and provide Great Plains' customers with information on energy conservation measures, potential costs for implementing the identified measures and the estimated energy savings for the measures. The assessment includes, at a minimum, a blower door test, carbon monoxide (CO) testing of combustion appliances, and, if the home has atmospherically-vented appliances, natural draft and worst-case depressurization (WCD) tests.

Great Plains saw an increase in participants in its Residential Energy Assessment Program in 2021 compared to 2020. Participation was 10.8 percent of authorized and expenditures were 18.3 percent of authorized.

6. Low Income Programs

Great Plains offers conservation measures to low income customers via four programs by funding two weatherization measures through local Community Action Program (CAP) agencies (based on income), funding for an emergency replacement of a furnace or boiler, funding for furnace and boiler tune-ups for qualified low-income customers, and the Hot Water Heater Temp Set-Back Program. The maximum funding available to the CAP agency for a qualified customer is \$1,800 (customers up to 200% of the poverty level) or \$2,500 (customer between 200-400% of the poverty level) for weatherization, \$3,500 for a furnace replacement, \$5,000 for a boiler replacement, and \$200 for a furnace or boiler tune-up. There is no cash incentive associated with the Hot Water Heater Temp Set Back Program, as Great Plains believes the participants will see immediate energy and cost savings.

Great Plains had one additional participant in its Low Income Program in 2021 compared to 2020. The Low Income Program continued to experience challenges due to COVID. Staffing continues to be a challenge for the CAP agencies. Participation was 21.6 percent of authorized and dk savings were 37.0 percent of authorized. A summary of projects and dk savings are provided in Attachment B, page 8.

Commercial and Industrial Customer Programs

7. Commercial and Industrial Space Heating Equipment Program

The Commercial and Industrial Space Heating Equipment Program provides commercial and industrial customers a cash rebate for the installation of qualifying high-efficiency space heating equipment with minimum input ratings. The program includes a rebate of \$300 for a 94 percent or greater AFUE furnace and \$400 for a 96 percent or greater AFUE furnace. The rebates for the 85 percent or greater high efficiency hot water boilers, 88 percent or greater high efficiency hot water boilers, 84 percent or greater AFUE low pressure boilers, and 83 percent or greater AFUE high pressure boilers vary based on the size and efficiency of equipment. The program also includes a rebate of \$250 for low-intensity tube-type infrared heaters and \$300 for 88 percent or greater condensing unit heaters.

Overall, the participation was 70.3 percent of authorized with dk savings at 81.2 percent of authorized.

8. Commercial and Industrial Water Heating Equipment Program

The Commercial and Industrial Water Heating Equipment Program provides commercial and industrial customers a cash incentive for the installation of qualifying commercial natural gas water heating equipment. The program includes a rebate of \$100 for ENERGY STAR rated storage type (less than or equal to 75,000 btu/hour) water heater and a rebate based on the installed BTUH size of the water heater for ENERGY STAR rated Condensing Efficiency water heaters valued at \$140/kBtuh input.

The Commercial and Industrial Water Heating Equipment Program had 8 participants in 2021, one participant over the budget. Participation was 114.3% of authorized, with a corresponding dk savings of 1,542.3% of authorized.

9. Commercial and Industrial Boiler Equipment Program

The Commercial and Industrial Boiler Equipment Program provides commercial and industrial customers a cash incentive for the repair or upgrade of boiler equipment with qualifying energy efficiency boiler equipment. The program includes boiler O2 controls, modulating burners, boiler stack dampers, boiler turbulators, boiler outdoor air resets, boiler cut-out controls, boiler tune-ups and steam traps, with the rebate based on the type of equipment and kBTUH levels as shown below.

Equipment Type	Efficiency Requirement	Rebate Amount
Boiler O2 Control	All kBTuh levels	\$3,000
Modulating Burners	< 2,500 kBTuh	\$1,250
Modulating Burners	≥ 2,500 kBTuh	\$2,500
Boiler Stack Dampers	All kBTuh levels	\$500
Boiler Turbulators	All kBTuh levels	\$500
Boiler Outdoor Air Resets	All kBTuh levels	\$300
Boiler Cut-Out Controls	All kBTuh levels	\$100
Boiler Tune-Ups	< 2,500 kBTuh	\$200
Boiler Tune-Ups	≥ 2,500 kBTuh	\$300
Steam Traps	Steam Trap Survey Required	50% of Equipment Cost

The Commercial and Industrial Boiler Equipment Program had 7 participants in 2021. Participation was 33.3% of authorized, with a corresponding dk savings of 55.1% of authorized.

10. Foodservice Equipment Program

The Foodservice Equipment Program provides the restaurant industry and public facilities, such as schools and hospitals, cash incentives for the installation of natural gas foodservice cooking equipment. There are separate rebates for two groups of food service equipment. The first tier provides a \$500 rebate for the following equipment types: deck oven, pizza deck oven, standard oven, range, standard char-broiler, standard salamander broiler, open flame rotisserie oven, and standard griddle. The second tier provides a \$1,000 rebate for the following equipment types: combined oven steamer, standard radiant broiler, rotating deck oven, and standard steamer.

In 2021, Great Plains had no participants in this program.

11. Commercial and Industrial Custom Program

The Commercial and Industrial Custom Program offers commercial and industrial customers a cash rebate for an energy saving project that is not eligible under a prescriptive program. Custom projects require the involvement of both the customer and the Company working together to develop cost-effective energy saving projects specific to the individual customer's business. Each project is individually evaluated using established criteria and utilizing the BENCOST model to determine eligibility and rebate amounts. Great Plains offers an incentive of \$10 per dk, up to 50 percent of the equipment cost, or buy down the project cost to a simple payback of one year, whichever is less.

There were four Commercial and Industrial Custom Program participants in 2021. The program achieved energy savings of 2,885 dk, or 6.0 percent of the authorized savings level. The cost per dk for the program also came in above the authorized cost of \$9.90 per dk with an actual cost per dk of \$22.14.

A brief summary of the custom project follows:

- Replaced heating system in lower level of a commercial building.
- Replaced heating system in upper level of a commercial building.
- Installed heat reclaim units to pre-heat incoming air for a commercial building.
- Installed heat reclaim units to pre-heat incoming air for a commercial building.

12. Building Certification Program

The Building Certification Program provides rebates to qualifying customers that participate in the Energy STAR, Leadership in Energy and Environmental Design (LEED), or Green Globes Certified Buildings Programs, or Sustainable Buildings 2030.

ENERGY STAR Labeled Buildings Program

Great Plains will grant a rebate of 50 percent of the cost of professional engineering services up to a maximum of \$3,000 per facility. This rebate is available to new and existing commercial or industrial buildings that meet the eligibility requirements as set by ENERGY STAR and that use natural gas as the primary heating source.

Leadership in Energy and Environmental Design (LEED) Building Certification Program

Great Plains will grant a rebate of 50 percent of the cost of application fees and/or professional engineering services up to a maximum of \$5,000 per facility. This rebate is available to new and existing buildings that are eligible under the requirements of the LEED rating systems and that use natural gas as the primary heating source.

Green Globes™ Certified Buildings

Great Plains will grant a rebate of 50 percent of the cost of independent third-party review and site assessments up to a maximum of \$2,500 per facility. This rebate is available to new and existing commercial or industrial buildings that meet the minimum 35 percent threshold of the new construction self-assessment or the continual improvement for existing buildings assessment and that use natural gas as the primary heating source.

Sustainable Buildings (SB2030)

Great Plains will rebate 100 percent of the first \$5,000 and 50 percent of additional costs for professional engineering services with a maximum payout of \$10,000 for commercial and industrial buildings that meet the SB2030 requirements.

Great Plains did not have any participation in the Building Certification Program in 2021.

13. Commercial Energy Assessment Program

The Commercial Energy Assessment Program provides commercial customers using more than 1,000 dk annually a comprehensive energy assessment which includes analyses and recommendations on ways to increase energy efficiency in existing commercial buildings. The program offers the following services to participants: an analysis of recent natural gas usage (excluding process load) at the customer's facility, a thorough inspection of the customer's facility including the building envelope, insulation and installed natural gas equipment, a review of how the natural gas equipment is currently operated and a report of energy related opportunities identified during the assessment.

The commercial energy assessment is performed by third-party certified energy managers and provides Great Plains' customers with information on energy conservation measures, potential costs for implementing the identified measures and the estimated energy savings for the measures. Customers are responsible for a co-payment of \$150 for the assessment which is refundable upon implementation of an energy saving project identified in the assessment.

Great Plains did not have any participation in the Commercial Energy Assessment Program in 2021.

14. Industrial Energy Assessment Program

The Industrial Energy Assessment Program provides industrial and grain-drying customers with a comprehensive energy assessment which includes analyses and recommendations on ways to increase energy efficiency in existing facilities. The program is available to customers with industrial processing load of at least 1,000 dk annually and customers with natural gas grain-drying load.

The industrial energy assessment is performed by third-party certified energy managers and provides Great Plains' customers with information on energy conservation measures, potential

costs for implementing the identified measures and the estimated energy savings for the measures. Industrial customers are responsible for a co-payment of \$500 for an industrial assessment and \$250 per assessment for a grain dryer which is refundable upon implementation of an energy saving project identified in the assessment.

Great Plains did not have any participants in the Industrial Energy Assessment Program in 2021.

15. CIP Assessment Charges

The CIP Assessment Charges from the Department of Commerce, Division of Energy Resources (Department) related to Technical Assistance, Research and Development (R&D) grants and Facilities Energy Efficiency are fees assessed on a quarterly basis. These expenses are not directly related to Great Plains' CIP Program, but are tracked and recovered through the Conservation Cost Recovery Charge (CCRC) and the Conservation Cost Recovery Adjustment (CCRA) charged to the Company's customers

In 2021, CIP assessments amounted to \$20,853, which is below the \$26,000 authorized.

16. Employee Expenses

Pursuant to Minnesota Statutes 2008, Section 216B.16, Great Plains recorded minimal employee expenses for travel in 2021. Great Plains did not exceed the 0.5 percent total annual CIP expense limit during 2021.

	Employee Expense
Vehicles	\$48
Commercial Air Service	0
Personal Vehicle Use	0
Meals	4
Other Reimbursable Expenses	63
Total	<u>\$115</u>

**GREAT PLAINS NATURAL GAS CO.
CONSERVATION IMPROVEMENT PROGRAM
TRACKER REPORT**

III: Conservation Improvement Tracker Program:

Pursuant to the Order issued in Docket No. E,G-999/CI-08-133, Great Plains submits for approval its report on collections and expenditures from the Conservation Improvement Program (CIP) and the calculation of a proposed Conservation Improvement Resource Adjustment (CCRA) proposed to be effective September 1, 2022.

Attachment D, page 1, is the calculation of the proposed CCRA using estimated volumes excluding CIP-exempt customer volumes, as authorized in Docket Nos. G004/M-12-439 and G004/CIP-19-606. The proposed CCRA is \$0.0805 per dk for all non-CIP Exempt customers, a decrease of \$0.0090 from the current CCRA (established in Docket Nos. G004/M-19-511 and G004/M-20-448). For a typical residential customer using 77.6 dk per year, this reflects a decrease of \$0.70 annually or \$0.06 per month.

The CIP True-up, as shown on Attachment D, page 2, includes the balance in the CIP account as of December 31, 2021, as well as the projected sales, expenditures, and any pertinent adjustments that may occur over the period the CCRA will be in place. The Company does not qualify to receive a 2021 DSM financial incentive. Carrying charges are calculated at the short-term debt cost authorized in Great Plains' filed rate cases, Docket Nos. G004/GR-15-879 and G004/GR-19-511, as appropriate.

The detailed activity by month is shown in Attachment D pages 3 and 4.

Attachment A is the CCRA tariff sheet (Sheet No. 5-111) with the proposed rate per dk.

2021 DEMAND-SIDE MANAGEMENT (DSM) INCENTIVE

IV: Demand-Side Management Incentive:

Great Plains submits this report in compliance with the Commission's Order approving the natural gas DSM Financial Incentive program, Docket No. E,G-999/CI-08-133.

Attachment E shows the calculation of the DSM Incentive for 2021 based on the results of the 2021 CIP program. As shown in Attachment B, Great Plains total energy savings in 2021 were 15,154 dk, which results in an achievement level of 0.25%. This level of achievement is below the minimum level required to receive a financial incentive, which is an achievement level greater than 0.70%, or energy savings greater than 42,629 dk. Therefore, Great Plains' 2021 CIP results do not qualify for a DSM incentive.

The Commission approved a conservation improvement plan incentive program for gas and electric utilities in its January 27, 2010 Order Establishing Utility Performance Incentives for Utility Conservation in Docket No. G,E-999/CI-08-133. Great Plains' plan is consistent with the four considerations contained in Section 216B.16, subd. 6c.

1. Whether the plan is likely to increase utility investment in cost-effective energy conservation.

The incentive plan is likely to increase Great Plains' investment in cost-effective energy conservation because the incentive for achieving each new increment of energy savings increases as the percent of goal achieved increases. No significant incentive is provided unless Great Plains meets or exceeds its expected energy savings at minimum statutory spending guidelines. The increasing increment of the incentive motivates Great Plains to exceed energy savings achievable at statutory spending levels.

The DSM Financial Incentive Plan has increased Great Plains' investment in cost-effective energy conservation because the mechanism encourages cost-effective spending above the statutory minimum.

2. Whether the plan is compatible with the interest of utility ratepayers and other interested parties.

Great Plains' Plan is compatible with the interest of utility customers and other interested parties because it does not receive a significant incentive until it extends beyond the energy savings goals associated with statutory spending requirements. In addition, the incentive never exceeds the incremental increase in net benefits that are created by surpassing the incentive energy savings goals. The incentive is only a fraction of the achieved net benefits and therefore customers receive the vast majority of benefits achieved under the CIP programs.

3. Whether the plan links the incentive to the utility's performance in achieving cost-effective conservation

Great Plains' DSM Financial Incentive Plan links the incentive to its performance in achieving cost-effective conservation. If Great Plains' CIP Program is not cost-effective, there are no net benefits, and, thus, no incentive. As a CIP Program's cost effectiveness increases (increased Mcf saved per dollars spent), net benefits increase, and thus, the incentive increases. Therefore, the plan is directly linked to the cost-effectiveness of the program.

4. Whether the plan is in conflict with other provisions of Minnesota Statute 216B

Great Plains' Plan does not conflict with other provisions of 216B, which requires that all rates be just and reasonable. Awarding incentives under the Plan will not result in unjust or unreasonable rates because the incentives are not cumulative and are only a small portion of the net benefits (avoided costs).

Attachment A



GREAT PLAINS NATURAL GAS CO.

A Division of Montana-Dakota Utilities Co.

State of Minnesota Gas Rate Schedule – MNPUC Volume 3

Section No. 5

2nd Revised Sheet No. 5-111

Canceling 1st Revised Sheet No. 5-111

CONSERVATION IMPROVEMENT PROGRAM ADJUSTMENT CLAUSE

charge authorized in Docket No. G004/GR-19-511. The CCRC is approved and applied on a per dk basis by dividing the test-year CIP expenses by the test-year sales volumes (net of CIP-exempt volumes).

Determination of Conservation Cost Recovery Adjustment:

The CCRA Factor shall be calculated for each customer class by dividing the allocated recoverable Conservation Improvement Program costs, not recovered through the Base Charge by the projected sales volumes, excluding CIP-exempt customer volumes, for a designated recovery period. The factor may be adjusted annually with approval of the Minnesota Public Utilities Commission.

The applicable rate that will be assessed to all non-CIP exempt customers in each rate class is:

Base Charge CCRC	Adjustment CCRA Factor
\$0.0818	\$0.0805

Exemption:

Any customer account determined by the Commissioner to qualify for a CIP exemption as a Large Customer Facility or a Commercial Gas Customer pursuant to Minnesota Statutes 216B.241 and 216B.2421, shall be exempt from the CCRC and the CCRA. Customer accounts granted exemption by a decision of the Commissioner after the beginning of the calendar year shall be credited for any CIP collections billed after January 1st of the year following the Commissioner's decision.

Any customer account determined by the MPUC to qualify for a CIP exemption as a Large Energy Facility pursuant to Minnesota Statutes 216B.16, subd. 6b(b) and 216B.2421, subd. 2(1), shall be exempt from the CCRC and the CCRA Factor.

For Large Customer Facilities, Commercial Gas Customers or Large Energy Facilities, determined to be CIP exempt, the Flexible Distribution Charge will be reduced by the CCRC for exempt customers served under a specific flexed contract. Exempt customers not served under a flexed contract will be billed a credit CCRC. Upon exemption from the conservation program charges, no exempted customer may participate in the Company's gas conservation improvement program unless the owner of the facility submits a filing with the Commissioner or the MPUC to withdraw its exemption.

Date Filed: May 2, 2022

Effective Date:

Issued By: Travis R. Jacobson
Director – Regulatory Affairs

Docket No.:

Tariff Reflecting Proposed Changes



GREAT PLAINS NATURAL GAS CO.

A Division of Montana-Dakota Utilities Co.

State of Minnesota Gas Rate Schedule – MNPUC Volume 3

Section No. 5

~~4th~~^{1st}~~2nd~~ Revised Sheet No. 5-111

Canceling ~~Original~~^{1st} Revised Sheet No. 5-111

CONSERVATION IMPROVEMENT PROGRAM ADJUSTMENT CLAUSE

charge authorized in Docket No. G004/GR-19-511. The CCRC is approved and applied on a per dk basis by dividing the test-year CIP expenses by the test-year sales volumes (net of CIP-exempt volumes).

Determination of Conservation Cost Recovery Adjustment:

The CCRA Factor shall be calculated for each customer class by dividing the allocated recoverable Conservation Improvement Program costs, not recovered through the Base Charge by the projected sales volumes, excluding CIP-exempt customer volumes, for a designated recovery period. The factor may be adjusted annually with approval of the Minnesota Public Utilities Commission.

The applicable rate that will be assessed to all non-CIP exempt customers in each rate class is:

Base Charge CCRC	Adjustment CCRA Factor
\$0.0818	\$0.0895 ^{\$0.0805}

Exemption:

Any customer account determined by the Commissioner to qualify for a CIP exemption as a Large Customer Facility or a Commercial Gas Customer pursuant to Minnesota Statutes 216B.241 and 216B.2421, shall be exempt from the CCRC and the CCRA. Customer accounts granted exemption by a decision of the Commissioner after the beginning of the calendar year shall be credited for any CIP collections billed after January 1st of the year following the Commissioner's decision.

Any customer account determined by the MPUC to qualify for a CIP exemption as a Large Energy Facility pursuant to Minnesota Statutes 216B.16, subd. 6b(b) and 216B.2421, subd. 2(1), shall be exempt from the CCRC and the CCRA Factor.

For Large Customer Facilities, Commercial Gas Customers or Large Energy Facilities, determined to be CIP exempt, the Flexible Distribution Charge will be reduced by the CCRC for exempt customers served under a specific flexed contract. Exempt customers not served under a flexed contract will be billed a credit CCRC. Upon exemption from the conservation program charges, no exempted customer may participate in the Company's gas conservation improvement program unless the owner of the facility submits a filing with the Commissioner or the MPUC to withdraw its exemption.

Date Filed: ~~April 30, 2021~~^{May 2, 2022}

Effective Date: ~~Service rendered on and after February 1, 2022~~

Issued By: Travis R. Jacobson
Director – Regulatory Affairs

Docket No.: ~~G004/M-21-305~~

**GREAT PLAINS NATURAL GAS CO.
GAS UTILITY - MINNESOTA
CONSERVATION IMPROVEMENT PROGRAM STATUS REPORT
SUMMARY OF PROGRAM RESULTS
2021**

	Expenses			Percent of	Participants			Percent of	Dk Savings			Percent of
	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized
<u>Residential Programs</u>												
Space Heating Equipment	\$199,653	\$225,745	\$26,092	113.1%	735	733	(2)	99.7%	7,798	8,643	845	110.8%
Water Heating Equipment	16,276	12,558	(3,718)	77.2%	485	242	(243)	49.9%	594	331	(263)	55.7%
Attic Insulation	219	0	(219)	0.0%	1	0	(1)	0.0%	7	0	(7)	0.0%
Pilotless Fireplace	219	0	(219)	0.0%	2	0	(2)	0.0%	9	0	(9)	0.0%
Residential Energy Assessment	23,741	4,353	(19,388)	18.3%	65	7	(58)	10.8%	0	0	0	0.0%
Total Residential Programs	\$240,108	\$242,656	\$2,548	101.1%	1,288	982	(306)	76.2%	8,408	8,974	566	106.7%
<u>Low Income Programs</u>												
Weatherization	\$103,196	\$31,624	(\$71,572)	30.6%	37	11	(26)	29.7%	533	92	(441)	17.3%
Furnace and Boiler Replacement	70,229	24,366	(45,863)	34.7%	17	5	(12)	29.4%	323	237	(86)	73.4%
Furnace and Boiler Tune-Up	1,032	0	(1,032)	0.0%	5	0	(5)	0.0%	19	0	(19)	0.0%
Hot Water Heater Temp Set-Back	0	0	0	0.0%	15	0	(15)	0.0%	14	0	(14)	0.0%
Total Low Income Programs	\$174,457	\$55,990	(\$118,467)	32.1%	74	16	(58)	21.6%	889	329	(560)	37.0%
<u>Commercial and Industrial Programs</u>												
Commercial Space Heating Equipment	\$50,429	\$68,801	\$18,372	136.4%	64	45	(19)	70.3%	2,771	2,251	(520)	81.2%
Commercial Water Heating Equipment	1,846	6,198	4,352	335.8%	7	8	1	114.3%	26	401	375	1542.3%
Commercial Boiler Equipment	6,699	3,320	(3,379)	49.6%	21	7	(14)	33.3%	570	314	(256)	55.1%
Commercial Food Service	2,638	0	(2,638)	0.0%	3	0	(3)	0.0%	262	0	(262)	0.0%
Commercial Custom	474,981	63,864	(411,117)	13.4%	12	4	(8)	33.3%	48,000	2,885	(45,115)	6.0%
Commercial Building Certification	5,278	0	(5,278)	0.0%	1	0	(1)	0.0%	0	0	0	0.0%
Commercial Energy Assessment	6,266	0	(6,266)	0.0%	5	0	(5)	0.0%	0	0	0	0.0%
Industrial Energy Assessment	7,917	0	(7,917)	0.0%	2	0	(2)	0.0%	0	0	0	0.0%
Total Commercial and Industrial Programs	\$556,054	\$142,183	(\$413,871)	25.6%	115	64	(51)	55.7%	51,629	5,851	(45,778)	11.3%
Direct Assessment Charges	26,000	20,853	(5,147)	80.2%								
Grand Total of All Programs	\$996,619	\$461,682	(\$534,937)	46.3%	1,477	1,062	(415)	71.9%	60,926	15,154	(45,772)	24.9%

1/ 2021-2023 Conservation Improvement Program Triennial approved by the MN DOC on November 24, 2020 in Docket No. G004/CIP-20-477.

**GREAT PLAINS NATURAL GAS CO.
CONSERVATION IMPROVEMENT PROGRAM STATUS REPORT
LOW INCOME AND RENTER PARTICIPANTS
SUMMARY OF PROGRAM RESULTS
2021**

	Expenses			Percent of	Participants			Percent of	Dk Savings			Percent of
	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized
<u>Low Income Participants</u>												
<u>Residential Programs</u>												
Space Heating Equipment 2/	\$6,988	\$14,448	\$7,460	206.8%	26	40	14	153.8%	276	507	231	183.7%
Water Heating Equipment 3/	1,204	1,118	(86)	92.9%	36	4	(32)	11.1%	44	8	(36)	18.2%
Attic Insulation	0	0	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
Pilotless Fireplace	0	0	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
Residential Energy Assessment	1,828	1,506	(322)	82.4%	5	2	(3)	40.0%	0	0	0	0.0%
Total Residential Programs	<u>\$10,020</u>	<u>\$17,072</u>	<u>\$7,052</u>	<u>170.4%</u>	<u>67</u>	<u>46</u>	<u>(21)</u>	<u>68.7%</u>	<u>320</u>	<u>515</u>	<u>195</u>	<u>160.9%</u>
Low Income Programs	\$174,457	\$55,990	(\$118,467)	32.1%	74	16	(58)	21.6%	889	329	(560)	37.0%
Grand Total of Low Income Programs	<u><u>\$184,477</u></u>	<u><u>\$73,062</u></u>	<u><u>(\$111,415)</u></u>	<u><u>39.6%</u></u>	<u><u>141</u></u>	<u><u>62</u></u>	<u><u>(79)</u></u>	<u><u>44.0%</u></u>	<u><u>1,209</u></u>	<u><u>844</u></u>	<u><u>(365)</u></u>	<u><u>69.8%</u></u>
<u>Renter Participants</u>												
<u>Residential Programs</u>												
Space Heating Equipment 2/	\$17,170	\$16,479	(\$691)	96.0%	63	49	(14)	77.8%	668	549	(119)	82.2%
Water Heating Equipment 3/	1,204	867	(337)	72.0%	36	25	(11)	69.4%	44	29	(15)	65.9%
Attic Insulation	0	0	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
Pilotless Fireplace	0	0	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
Residential Energy Assessment	0	753	753	0.0%	0	1	1	0.0%	0	0	0	0.0%
Total Residential Programs	<u>\$18,374</u>	<u>\$18,099</u>	<u>(\$275)</u>	<u>98.5%</u>	<u>99</u>	<u>75</u>	<u>(24)</u>	<u>75.8%</u>	<u>712</u>	<u>578</u>	<u>(134)</u>	<u>81.2%</u>
Total of Renter Programs	<u><u>\$18,374</u></u>	<u><u>\$18,099</u></u>	<u><u>(\$275)</u></u>	<u><u>98.5%</u></u>	<u><u>99</u></u>	<u><u>75</u></u>	<u><u>(24)</u></u>	<u><u>75.8%</u></u>	<u><u>712</u></u>	<u><u>578</u></u>	<u><u>(134)</u></u>	<u><u>81.2%</u></u>

1/ 2021-2023 Conservation Improvement Program Triennial approved by the MN DOC on November 24, 2020 in Docket No. G004/CIP-20-477.

2/ Includes rental property from Programmable Thermostat, Furnance, Furnance and Boiler Tune-Up, and Boiler Programs.

3/ Includes rental property from the Water Heating Equipment and Low Flow Showerhead Programs.

**GREAT PLAINS NATURAL GAS CO.
GAS UTILITY - MINNESOTA
CONSERVATION IMPROVEMENT PROGRAM STATUS REPORT
PROGRAM RESULTS
2021**

	Expenses			Percent of	Participants			Percent of	Dk Savings			Percent of
	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized
<u>Residential Programs</u>												
<u>Residential Space Heating Equipment</u>												
Programmable Thermostats Tier 1	\$1,315	\$789	(\$526)	60.0%	60	37	(23)	61.7%	150	85	(65)	56.7%
Programmable Thermostats Tier 2	7,306	1,494	(5,812)	20.4%	100	21	(79)	21.0%	370	78	(292)	21.1%
Programmable Thermostats Tier 3	5,479	10,245	4,766	187.0%	50	96	46	192.0%	305	720	415	236.1%
Furnace Tier 1 - 94-96% AFUE - New	2,192	426	(1,766)	19.4%	5	1	(4)	20.0%	95	18	(77)	18.9%
Furnace Tier 1 - 94-96% AFUE - Replacement	65,746	23,477	(42,269)	35.7%	150	55	(95)	36.7%	2,850	917	(1,933)	32.2%
Furnace Tier 2 - 96%+ AFUE - New	11,689	5,691	(5,998)	48.7%	20	10	(10)	50.0%	406	66	(340)	16.3%
Furnace Tier 2 - 96%+ AFUE - Replacement	67,208	152,527	85,319	226.9%	115	268	153	233.0%	2,335	5,619	3,284	240.6%
Furnace and Boiler Tune-Up	14,611	15,445	834	105.7%	200	221	21	110.5%	460	535	75	116.3%
Boiler Tier 1 - 84-90.9% AFUE	2,192	2,134	(58)	97.4%	5	5	0	100.0%	38	38	0	100.0%
Boiler Tier 2 - 91%+ AFUE	21,915	13,517	(8,398)	61.7%	30	19	(11)	63.3%	789	567	(222)	71.9%
Total Residential Space Heating Equipment	\$199,653	\$225,745	\$26,092	113.1%	735	733	(2)	99.7%	7,798	8,643	845	110.8%
<u>Residential Water Heating Equipment</u>												
Water Heating (.67 EF)	\$3,653	\$2,419	(\$1,234)	66.2%	25	17	(8)	68.0%	45	47	2	104.4%
Tankless Water Heating (.82 EF)	3,653	6,047	2,394	165.5%	10	17	7	170.0%	9	34	25	377.8%
Low Flow Showerheads	8,970	4,092	(4,878)	45.6%	450	208	(242)	46.2%	540	250	(290)	46.3%
Total Residential Water Heating Equipment	\$16,276	\$12,558	(\$3,718)	77.2%	485	242	(243)	49.9%	594	331	(263)	55.7%
Attic Insulation	\$219	\$0	(\$219)	0.0%	1	0	(1)	0.0%	7	0	(7)	0.0%
Pilotless Fireplace	219	0	(219)	0.0%	2	0	(2)	0.0%	9	0	(9)	0.0%
Residential Energy Assessment	23,741	4,353	(19,388)	18.3%	65	7	(58)	10.8%	0	0	0	0.0%
Total Residential Programs	\$240,108	\$242,656	\$2,548	101.1%	1,288	982	(306)	76.2%	8,408	8,974	566	106.7%
<u>Low Income Programs</u>												
Weatherization	\$103,196	\$31,624	(\$71,572)	30.6%	37	11	(26)	29.7%	533	92	(441)	17.3%
Furnace and Boiler Replacement	70,229	24,366	(45,863)	34.7%	17	5	(12)	29.4%	323	237	(86)	73.4%
Furnace and Boiler Tune-Up	1,032	0	(1,032)	0.0%	5	0	(5)	0.0%	19	0	(19)	0.0%
Hot Water Heater Temp Set-Back	0	0	0	0.0%	15	0	(15)	0.0%	14	0	(14)	0.0%
Total Low Income Programs	\$174,457	\$55,990	(\$118,467)	32.1%	74	16	(58)	21.6%	889	329	(560)	37.0%

1/ 2021-2023 Conservation Improvement Program Triennial approved by the MN DOC on November 24, 2020 in Docket No. G004/CIP-20-477.

**GREAT PLAINS NATURAL GAS CO.
GAS UTILITY - MINNESOTA
CONSERVATION IMPROVEMENT PROGRAM STATUS REPORT
PROGRAM RESULTS
2021**

	Expenses			Percent of	Participants			Percent of	Dk Savings			Percent of
	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized
<u>Commercial and Industrial Programs</u>												
<u>Commercial Space Heating Equipment</u>												
Furnace Tier 1 - 94-96% AFUE - Replacement	\$5,938	\$6,641	\$703	111.8%	15	10	(5)	66.7%	464	239	(225)	51.5%
Furnace Tier 2 - 96%+ AFUE - New	1,583	0	(1,583)	0.0%	3	0	(3)	0.0%	99	0	(99)	0.0%
Furnace Tier 2 - 96%+ AFUE - Replacement	13,194	22,135	8,941	167.8%	25	25	0	100.0%	823	616	(207)	74.8%
Commercial Hot Water Boiler												
Tier 1 (85%+ AFUE)	2,006	0	(2,006)	0.0%	2	0	(2)	0.0%	79	0	(79)	0.0%
Tier 2 (88%+ AFUE)	21,637	38,918	17,281	179.9%	10	8	(2)	80.0%	988	1,280	292	129.6%
Commercial LP & HP Steam Boiler												
Tier 1 (<300,000 BTUH)	1,650	0	(1,650)	0.0%	1	0	(1)	0.0%	17	0	(17)	0.0%
Tier 2 (≥300,000 BTUH)	1,979	0	(1,979)	0.0%	1	0	(1)	0.0%	120	0	(120)	0.0%
Infrared Heater	1,650	1,107	(543)	67.1%	5	2	(3)	40.0%	141	116	(25)	82.3%
Condensing Unit Heater	792	0	(792)	0.0%	2	0	(2)	0.0%	40	0	(40)	0.0%
Total Commercial Space Heating Equipment	\$50,429	\$68,801	\$18,372	136.4%	64	45	(19)	70.3%	2,771	2,251	(520)	81.2%
<u>Commercial Water Heating Equipment</u>												
Water Heater .64 EF+ (≥40 Gallons)	\$263	\$6,198	\$5,935	2356.7%	2	8	6	400.0%	6	401	395	6683.3%
Water Heater Storage 88% Cond.	1,583	0	(1,583)	0.0%	5	0	(5)	0.0%	20	0	(20)	0.0%
Total Commercial Water Heating Equipment	\$1,846	\$6,198	\$4,352	335.8%	7	8	1	114.3%	26	401	375	1542.3%
<u>Commercial Boiler Equipment</u>												
O2 Control	\$3,958	\$0	(\$3,958)	0.0%	1	0	(1)	0.0%	37	0	(37)	0.0%
Modulating Burner												
Tier 1 (<2,500 kBTUH)	0	0	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
Tier 2 (>2,500 kBTUH)	0	0	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
Stack Damper	660	0	(660)	0.0%	1	0	(1)	0.0%	92	0	(92)	0.0%
Turbulator	0	0	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
Outdoor Air Reset	0	0	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
Cut-Out Control	0	0	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
Boiler Tune-Up												
Tier 1 (<2,500 kBTUH)	527	0	(527)	0.0%	2	0	(2)	0.0%	29	0	(29)	0.0%
Tier 2 (≥2,500 kBTUH)	792	3,320	2,528	419.2%	2	7	5	350.0%	203	314	111	154.7%
Steam Trap	762	0	(762)	0.0%	15	0	(15)	0.0%	209	0	(209)	0.0%
Total Commercial Boiler Equipment	\$6,699	\$3,320	(\$3,379)	49.6%	21	7	(14)	33.3%	570	314	(256)	55.1%

1/ 2021-2023 Conservation Improvement Program Triennial approved by the MN DOC on November 24, 2020 in Docket No. G004/CIP-20-477.

**GREAT PLAINS NATURAL GAS CO.
GAS UTILITY - MINNESOTA
CONSERVATION IMPROVEMENT PROGRAM STATUS REPORT
PROGRAM RESULTS
2021**

	Expenses			Percent of Authorized	Participants			Percent of Authorized	Dk Savings			Percent of Authorized
	Authorized 1/	Actual	Difference		Authorized 1/	Actual	Difference		Authorized 1/	Actual	Difference	
Commercial Food Service												
Tier 1 (\$500 Incentive)	\$1,319	\$0	(\$1,319)	0.0%	2	0	(2)	0.0%	179	0	(179)	0.0%
Tier 2 (\$1,000 Incentive)	1,319	0	(1,319)	0.0%	1	0	(1)	0.0%	83	0	(83)	0.0%
Total Commercial Food Service	<u>\$2,638</u>	<u>\$0</u>	<u>(\$2,638)</u>	0.0%	<u>3</u>	<u>0</u>	<u>(3)</u>	0.0%	<u>262</u>	<u>0</u>	<u>(262)</u>	0.0%
Commercial Custom	\$474,981	\$63,864	(\$411,117)	13.4%	12	4	(8)	33.3%	48,000	2,885	(45,115)	6.0%
Commercial Building Certification	5,278	0	(5,278)	0.0%	1	0	(1)	0.0%	0	0	0	0.0%
Commercial Energy Assessment	6,266	0	(6,266)	0.0%	5	0	(5)	0.0%	0	0	0	0.0%
Industrial Energy Assessment	7,917	0	(7,917)	0.0%	2	0	(2)	0.0%	0	0	0	0.0%
Total Commercial and Industrial Programs	<u>\$556,054</u>	<u>\$142,183</u>	<u>(\$413,871)</u>	25.6%	<u>115</u>	<u>64</u>	<u>(51)</u>	55.7%	<u>51,629</u>	<u>5,851</u>	<u>(45,778)</u>	11.3%
Total Programs	<u>\$970,619</u>	<u>\$440,829</u>	<u>(\$529,790)</u>	45.4%	<u>1,477</u>	<u>1,062</u>	<u>(415)</u>	71.9%	<u>60,926</u>	<u>15,154</u>	<u>(45,772)</u>	24.9%
Direct Assessment Charges	<u>\$26,000</u>	<u>\$20,853</u>	<u>(\$5,147)</u>	80.2%								
Grand Total of All Programs	<u>\$996,619</u>	<u>\$461,682</u>	<u>(\$534,937)</u>	46.3%								

1/ 2021-2023 Conservation Improvement Program Triennial approved by the MN DOC on November 24, 2020 in Docket No. G004/CIP-20-477.

**GREAT PLAINS NATURAL GAS CO.
GAS UTILITY - MINNESOTA
CONSERVATION IMPROVEMENT PROGRAM STATUS REPORT
COST PER DK SAVINGS
ACTUAL TO AUTHORIZED
2021**

	Actual	Cost per Dk Savings			Percent of
	Participants	Authorized 1/	Actual	Difference	Authorized
<u>Residential Programs</u>					
<u>Residential Space Heating Equipment</u>					
Programmable Thermostats Tier 1	37	\$8.77	\$9.28	\$0.51	105.82%
Programmable Thermostats Tier 2	21	19.75	19.15	(0.60)	96.96%
Programmable Thermostats Tier 3	96	17.96	14.23	(3.73)	79.23%
Furnace Tier 1 - 94-96% AFUE - New	1	23.07	23.67	0.60	102.60%
Furnace Tier 1 - 94-96% AFUE - Replacement	55	23.07	25.60	2.53	110.97%
Furnace Tier 2 - 96%+ AFUE - New	10	28.79	86.23	57.44	299.51%
Furnace Tier 2 - 96%+ AFUE - Replacement	268	28.78	27.14	(1.64)	94.30%
Furnace and Boiler Tune-Up	221	31.76	28.87	(2.89)	90.90%
Boiler Tier 1 - 84-90.9% AFUE	5	57.68	56.16	(1.52)	97.36%
Boiler Tier 2 - 91%+ AFUE	19	27.78	23.84	(3.94)	85.82%
Total Residential Space Heating Equipment	733	\$25.60	\$26.12	\$0.52	102.03%
<u>Residential Water Heating Equipment</u>					
Water Heating (.67 EF)	17	\$81.18	\$51.47	(\$29.71)	63.40%
Tankless Water Heating (.82 EF)	17	405.89	177.85	(228.04)	43.82%
Low Flow Showerheads	208	16.61	16.37	(0.24)	98.56%
Total Residential Water Heating Equipment	242	\$27.40	\$37.94	\$10.54	138.47%
Attic Insulation	0	\$31.29	\$0.00	(\$31.29)	0.00%
Pilotless Fireplace	0	24.33	0.00	(24.33)	0.00%
Residential Energy Assessment	7	0.00	0.00	0.00	0.00%
Total Residential Programs	982	\$28.56	\$27.04	(\$1.52)	94.68%
<u>Low Income Programs</u>					
Weatherization	11	\$193.61	\$343.74	\$150.13	177.54%
Furnace and Boiler Replacement	5	217.43	102.81	(114.62)	47.28%
Furnace and Boiler Tune-Up	0	54.32	0.00	(54.32)	0.00%
Hot Water Heater Temp Set-Back	0	0.00	0.00	0.00	0.00%
Total Low Income Programs	16	\$196.24	\$170.18	(\$26.06)	86.72%
<u>Commercial and Industrial Programs</u>					
<u>Commercial Space Heating Equipment</u>					
Furnace Tier 1 - 94-96% AFUE - Replacement	10	12.80	27.79	14.99	217.11%
Furnace Tier 2 - 96%+ AFUE - New	0	15.99	0.00	(15.99)	0.00%
Furnace Tier 2 - 96%+ AFUE - Replacement	25	16.03	35.93	19.90	224.14%
Commercial Hot Water Boiler					
Tier 1 (85%+ AFUE)	0	25.39	0.00	(25.39)	0.00%
Tier 2 (88%+ AFUE)	8	21.90	30.40	8.50	138.81%
Commercial LP & HP Steam Boiler					
Tier 1 (<300,000 BTUH)	0	97.06	0.00	(97.06)	0.00%
Tier 2 (≥300,000 BTUH)	0	16.49	0.00	(16.49)	0.00%
Infrared Heater	2	11.70	9.54	(2.16)	81.54%
Condensing Unit Heater	0	19.80	0.00	(19.80)	0.00%
Total Commercial Space Heating Equipment	45	\$18.20	\$30.56	\$12.36	167.91%

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**GREAT PLAINS NATURAL GAS CO.
GAS UTILITY - MINNESOTA
CONSERVATION IMPROVEMENT PROGRAM STATUS REPORT
COST PER DK SAVINGS
ACTUAL TO AUTHORIZED
2021**

	Actual Participants	Cost per Dk Savings			Percent of Authorized
		Authorized 1/	Actual	Difference	
<u>Commercial Water Heating Equipment</u>					
Water Heater .64 EF+ (≥40 Gallons)	8	\$43.83	\$15.46	(\$28.37)	35.27%
Water Heater Storage 88% Cond.	0	79.15	0.00	(79.15)	0.00%
Total Commercial Water Heating Equipment	8	\$71.00	\$15.46	(\$55.54)	21.77%
<u>Commercial Boiler Equipment</u>					
O2 Control	0	\$106.97	\$0.00	(\$106.97)	0.00%
Modulating Burner					
Tier 1 (<2,500 kBTUH)	0	0.00	0.00	0.00	0.00%
Tier 2 (>2,500 kBTUH)	0	0.00	0.00	0.00	0.00%
Stack Damper	0	7.17	0.00	(7.17)	0.00%
Turbulator	0	0.00	0.00	0.00	0.00%
Outdoor Air Reset	0	0.00	0.00	0.00	0.00%
Cut-Out Control	0	0.00	0.00	0.00	0.00%
Boiler Tune-Up					
Tier 1 (<2,500 kBTUH)	0	18.17	0.00	(18.17)	0.00%
Tier 2 (≥2,500 kBTUH)	7	3.90	10.57	6.67	271.03%
Steam Trap	0	3.65	0.00	(3.65)	0.00%
Total Commercial Boiler Equipment	7	\$11.75	\$10.57	(\$1.18)	89.96%
<u>Commercial Food Service</u>					
Tier 1 (\$500 Incentive)	0	\$7.37	\$0.00	(\$7.37)	0.00%
Tier 2 (\$1,000 Incentive)	0	15.89	0.00	(15.89)	0.00%
Total Commercial Food Service	0	\$10.07	\$0.00	(\$10.07)	0.00%
Commercial Custom	4	\$9.90	\$22.14	\$12.24	223.64%
Commercial Building Certification	0	0.00	0.00	0.00	0.00%
Commercial Energy Assessment	0	0.00	0.00	0.00	0.00%
Industrial Energy Assessment	0	0.00	0.00	0.00	0.00%
Total Commercial and Industrial Programs	64	\$10.77	\$24.30	\$13.53	225.63%
Total Programs 2/	1,062	\$16.36	\$30.47	\$14.11	186.25%

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2/ Includes direct assessment charges.

**GREAT PLAINS NATURAL GAS CO.
GAS UTILITY - MINNESOTA
CONSERVATION IMPROVEMENT PROGRAM STATUS REPORT
SUMMARY OF LOW INCOME PROGRAMS
2021**

Agency	Participants	Weatherization			Furnace and Boiler Replacement			Furnace and Boiler Tune-Up			Total Low Income		
		Incentive Expense	Dk Savings	Expense per Dk	Incentive Expense	Dk Savings	Expense per Dk	Incentive Expense	Dk Savings	Expense Per Dk	Incentive Expense	Dk Savings	Expense per Dk
<u>Prairie V Community Action Council, Inc.</u>													
	1	\$2,196	10.0	\$219.60	\$3,850	2.2	\$1,750.00				\$6,046	12.2	\$495.57
		<u>\$2,196</u>	<u>10.0</u>	<u>\$219.60</u>	<u>\$3,850</u>	<u>2.2</u>	<u>\$1,750.00</u>	<u>\$0</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$6,046</u>	<u>12.2</u>	<u>\$495.57</u>
<u>West Central MN Communities Action, Inc.</u>													
	1	\$2,248	0.0	\$0.00							\$2,248	0.0	\$0.00
	2	2,429	15.6	155.71							2,429	15.6	155.71
		<u>\$4,677</u>	<u>15.6</u>	<u>\$299.81</u>	<u>\$0</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$0</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$4,677</u>	<u>15.6</u>	<u>\$299.81</u>
<u>United Community Action</u>													
	1	\$1,067	9.9	\$107.78	\$2,960	22.8	\$129.82				\$4,027	32.7	\$123.15
	2	1,997	3.0	665.67	2,750	39.8	69.10				4,747	42.8	110.91
	3	1,825	12.1	150.83	3,043	153.2	19.86				4,868	165.3	29.45
	4	1,819	10.1	180.10	0	0.0	0.00				1,819	10.1	180.10
	5	1,855	12.3	150.81	0	0.0	0.00				1,855	12.3	150.81
	6	1,939	0.0	0.00	0	0.0	0.00				1,939	0.0	0.00
	7	1,955	10.3	189.81	3,046	18.7	162.89				5,001	29.0	172.45
	8	981	8.7	112.76	0	0.0	0.00				981	8.7	112.76
		<u>\$13,438</u>	<u>66.4</u>	<u>\$202.38</u>	<u>\$11,799</u>	<u>234.5</u>	<u>\$50.32</u>	<u>\$0</u>	<u>0.0</u>	<u>\$0.00</u>	<u>\$25,237</u>	<u>300.9</u>	<u>\$83.87</u>
Total	11	\$20,311	92.0	\$220.77	\$15,649	236.7	\$66.11	\$0	0.0	\$0.00	\$35,960	328.7	\$109.40

<u>Participants</u>		
Weatherization		11
Furnace and Boiler Replacement		5
Furnace and Boiler Tune-Up		0
Total		<u>16</u>
Average Dk Savings per Participant		20.5

Conservation Improvement Program (CIP)

BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

Company: **Great Plains Natural Gas Co.**
Project: **Total Natural Gas Portfolio with Indirect Programs**

Input Data		2021	
1) Retail Rate (\$/MCF) =	\$5.3900	16 Utility Project Costs	
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$169,412
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.00	16 b) Incentive Costs =	\$271,417
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$440,829
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$1,118
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
5) Peak Reduction Factor =	0.23%	20) Project Life (Years) =	13
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	14.3
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	260 kWh
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
Escalation Rate =	3.59%	23) Number of Participants =	1,062
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	15,154
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	\$255.57
Escalation Rate =	2.30%		
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.01984		
Escalation Rate =	2.30%		
11) Participant Discount Rate =	3.19%		
12) Utility Discount Rate =	5.79%		
13) Societal Discount Rate =	3.02%		
14) General Input Data Year =	2020		
15a) Project Analysis Year 1 =	2021		
15b) Project Analysis Year 2 =			
15c) Project Analysis Year 3 =			

Cost Summary		Test Results		Triennial NPV	Triennial B/C
Utility Cost per Participant =	\$415.09	Ratepayer Impact Measure Test		(\$793,278)	0.47
Cost per Participant per MCF =	\$107.21	Utility Cost Test		\$251,587	1.57
Lifetime Energy Reduction (MCF)	197,002	Societal Test		\$42,520	1.03
Societal Cost per MCF	\$6.89	Participant Test		\$298,057	1.25

Conservation Improvement Program (CIP)

BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

Company: **Great Plains Natural Gas Co.**
Project: **Total Residential Portfolio**

Input Data		2021	
1) Retail Rate (\$/MCF) =	\$6.7358	16 Utility Project Costs	
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$71,433
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.00	16 b) Incentive Costs =	\$171,223
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$242,656
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$620
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	12
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	9.1
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	252 kWh
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
Escalation Rate =	3.59%	23) Number of Participants =	982
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	8,974
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	\$174.36
Escalation Rate =	2.30%		
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.01984		
Escalation Rate =	2.30%		
11) Participant Discount Rate =	3.02%		
12) Utility Discount Rate =	5.79%		
13) Societal Discount Rate =	3.02%		
14) General Input Data Year =	2020		
15a) Project Analysis Year 1 =	2021		
15b) Project Analysis Year 2 =			
15c) Project Analysis Year 3 =			

Cost Summary		Test Results		Triennial NPV	Triennial B/C
Utility Cost per Participant =	\$247.10	Ratepayer Impact Measure Test		(\$476,285)	0.50
Cost per Participant per MCF =	\$95.29	Utility Cost Test		\$241,142	1.99
Lifetime Energy Reduction (MCF)	107,688	Societal Test		\$253,657	1.37
Societal Cost per MCF	\$6.32	Participant Test		\$393,268	1.65

Conservation Improvement Program (CIP)

BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

Company: **Great Plains Natural Gas Co.**
Project: **Total Residential Space Heating Equipment**

Input Data		2021	
1) Retail Rate (\$/MCF) =	\$6.7358	16 Utility Project Costs	
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$67,085
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$158,660
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$225,745
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$784
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	12
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	11.8
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	338 kWh
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
Escalation Rate =	3.59%	23) Number of Participants =	733
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	8,643
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	\$216.45
Escalation Rate =	2.30%		
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.0198		
Escalation Rate =	2.30%		
11) Participant Discount Rate =	3.02%		
12) Utility Discount Rate =	5.79%		
13) Societal Discount Rate =	3.02%		
14) General Input Data Year =	2020		
15a) Project Analysis Year 1 =	2021		
15b) Project Analysis Year 2 =			
15c) Project Analysis Year 3 =			

Cost Summary		Test Results		Triennial NPV	Triennial B/C
Utility Cost per Participant =	\$307.97	Ratepayer Impact Measure Test		(\$450,756)	0.51
Cost per Participant per MCF =	\$92.54	Utility Cost Test		\$240,209	2.06
Lifetime Energy Reduction (MCF)	103,716	Societal Test		\$263,591	1.41
Societal Cost per MCF	\$6.19	Participant Test		\$384,226	1.67

Conservation Improvement Program (CIP)

BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

Company: **Great Plains Natural Gas Co.**
Project: **Total Residential Water Heating Equipment**

Input Data		2021	
1) Retail Rate (\$/MCF) =	\$6.7358	16 Utility Project Costs	
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$3,055
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$9,503
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$12,558
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$134
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	11
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	1.4
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
Escalation Rate =	3.59%	23) Number of Participants =	242
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	331
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	\$39.27
Escalation Rate =	2.30%		
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.0198		
Escalation Rate =	2.30%		
11) Participant Discount Rate =	3.02%		
12) Utility Discount Rate =	5.79%		
13) Societal Discount Rate =	3.02%		
14) General Input Data Year =	2020		
15a) Project Analysis Year 1 =	2021		
15b) Project Analysis Year 2 =			
15c) Project Analysis Year 3 =			

Cost Summary		Test Results		Triennial NPV	Triennial B/C
Utility Cost per Participant =	\$51.89	Ratepayer Impact Measure Test		(\$20,498)	0.45
Cost per Participant per MCF =	\$132.78	Utility Cost Test		\$3,884	1.31
Lifetime Energy Reduction (MCF)	3,641	Societal Test		(\$9,249)	0.74
Societal Cost per MCF	\$9.75	Participant Test		\$4,936	1.15

Company: Great Plains Natural Gas Co.
Project: Residential Attic Insulation

Input Data		2021		
1) Retail Rate (\$/MCF) =	\$6.7358	16 Utility Project Costs		
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$0	
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$0	
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$0	
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$1,632	
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	20	
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	6.6	
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh	
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh	
Escalation Rate =	3.59%	23) Number of Participants =	-	
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	0	
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	#DIV/0!	
Escalation Rate =	2.30%			
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.0198			
Escalation Rate =	2.30%			
11) Participant Discount Rate =	3.02%			
12) Utility Discount Rate =	5.79%			
13) Societal Discount Rate =	3.02%			
14) General Input Data Year =	2020			
15a) Project Analysis Year 1 =	2021			
15b) Project Analysis Year 2 =				
15c) Project Analysis Year 3 =				
Cost Summary		Test Results		Triennial
	2021		NPV	B/C
Utility Cost per Participant =	#DIV/0!	Ratepayer Impact Measure Test	\$0	#DIV/0!
Cost per Participant per MCF =	#DIV/0!	Utility Cost Test	\$0	#DIV/0!
Lifetime Energy Reduction (MCF)	0	Societal Test	\$0	#DIV/0!
Societal Cost per MCF	#DIV/0!	Participant Test	\$0	#DIV/0!

Company: Great Plains Natural Gas Co.
Project: Residential Pilotless Fireplace

Input Data		2021		
1) Retail Rate (\$/MCF) =	\$6.7358	16 Utility Project Costs		
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$0	
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$0	
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$0	
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$193	
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	15	
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	4.4	
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh	
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh	
Escalation Rate =	3.59%	23) Number of Participants =	-	
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	0	
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	#DIV/0!	
Escalation Rate =	2.30%			
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.0198			
Escalation Rate =	2.30%			
11) Participant Discount Rate =	3.02%			
12) Utility Discount Rate =	5.79%			
13) Societal Discount Rate =	3.02%			
14) General Input Data Year =	2020			
15a) Project Analysis Year 1 =	2021			
15b) Project Analysis Year 2 =				
15c) Project Analysis Year 3 =				
Cost Summary		Test Results		Triennial
	2021		NPV	B/C
Utility Cost per Participant =	#DIV/0!	Ratepayer Impact Measure Test	\$0	#DIV/0!
Cost per Participant per MCF =	#DIV/0!	Utility Cost Test	\$0	#DIV/0!
Lifetime Energy Reduction (MCF)	0	Societal Test	\$0	#DIV/0!
Societal Cost per MCF	#DIV/0!	Participant Test	\$0	#DIV/0!

Company: Great Plains Natural Gas Co.
Project: Residential Energy Assessment Program

Input Data		2021	
1) Retail Rate (\$/MCF) =	\$6.7358	16 Utility Project Costs	
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$1,293
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$3,060
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$4,353
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$300
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	10
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	-
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
Escalation Rate =	3.59%	23) Number of Participants =	7
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	0
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	\$437.14
Escalation Rate =	2.30%		
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.0198		
Escalation Rate =	2.30%		
11) Participant Discount Rate =	3.02%		
12) Utility Discount Rate =	5.79%		
13) Societal Discount Rate =	3.02%		
14) General Input Data Year =	2020		
15a) Project Analysis Year 1 =	2021		
15b) Project Analysis Year 2 =			
15c) Project Analysis Year 3 =			

Cost Summary		Test Results		Triennial NPV	Triennial B/C
Utility Cost per Participant =	\$621.86	Ratepayer Impact Measure Test		(\$4,353)	0.00
Cost per Participant per MCF =	#DIV/0!	Utility Cost Test		(\$4,353)	0.00
Lifetime Energy Reduction (MCF)	0	Societal Test		(\$3,393)	0.00
Societal Cost per MCF	#DIV/0!	Participant Test		\$960	1.46

Company: **Great Plains Natural Gas Co.**Project: **Total Low Income Programs**

Input Data		2021		
1) Retail Rate (\$/MCF) =	\$6.7358	16 Utility Project Costs		
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$20,030	
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$35,960	
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$55,990	
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$1,994	
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	20	
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	20.6	
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	225 kWh	
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh	
Escalation Rate =	3.59%	23) Number of Participants =	16	
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	329	
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	\$2,247.50	
Escalation Rate =	2.30%			
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.0198			
Escalation Rate =	2.30%			
11) Participant Discount Rate =	3.02%			
12) Utility Discount Rate =	5.79%			
13) Societal Discount Rate =	3.02%			
14) General Input Data Year =	2020			
15a) Project Analysis Year 1 =	2021			
15b) Project Analysis Year 2 =				
15c) Project Analysis Year 3 =				
Cost Summary		Test Results		
	2021		Triennial NPV	Triennial B/C
Utility Cost per Participant =	\$3,499.38	Ratepayer Impact Measure Test	(\$69,697)	0.29
Cost per Participant per MCF =	\$266.67	Utility Cost Test	(\$27,606)	0.51
Lifetime Energy Reduction (MCF)	6,580	Societal Test	\$1,470	1.03
Societal Cost per MCF	\$7.89	Participant Test	\$58,347	2.83

Company: **Great Plains Natural Gas Co.**Project: **Low Income Weatherization**

Input Data		2021		
1) Retail Rate (\$/MCF) =	\$6.7358	16 Utility Project Costs		
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$11,313	
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$20,311	
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$31,624	
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$1,333	
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	20	
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	17.5	
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh	
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh	
Escalation Rate =	3.59%	23) Number of Participants =	11	
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	92	
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	\$1,846.45	
Escalation Rate =	2.30%			
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.0198			
Escalation Rate =	2.30%			
11) Participant Discount Rate =	3.02%			
12) Utility Discount Rate =	5.79%			
13) Societal Discount Rate =	3.02%			
14) General Input Data Year =	2020			
15a) Project Analysis Year 1 =	2021			
15b) Project Analysis Year 2 =				
15c) Project Analysis Year 3 =				
Cost Summary		Test Results		
Utility Cost per Participant =	\$2,874.91	Ratepayer Impact Measure Test	Triennial NPV	Triennial B/C
Cost per Participant per MCF =	\$240.45	Utility Cost Test	(\$35,457)	0.18
Lifetime Energy Reduction (MCF)	1,840	Societal Test	(\$23,687)	0.25
Societal Cost per MCF	\$14.12	Participant Test	(\$12,090)	0.53
			\$20,830	2.42

BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

Input Data		2021	
1) Retail Rate (\$/MCF) =	\$6.7358	16 Utility Project Costs	
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	
		16 b) Incentive Costs =	<u>\$15,649</u>
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 c) Total Utility Project Costs =	\$15,649
Escalation Rate =	3.59%		
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$3,449
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	20
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	19.0
Escalation Rate =	4.69%		
		22) Avg Non-Gas Fuel Units/Part. Saved =	720 kWh
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
Escalation Rate =	3.59%		
		23) Number of Participants =	5
8) Non-Gas Fuel Loss Factor	7.70%		
		24) Total Annual MCF Saved =	237
9) Gas Environmental Damage Factor =	\$2.0700		
Escalation Rate =	2.30%	25) Incentive/Participant =	\$3,129.80
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.0198		
Escalation Rate =	2.30%		
11) Participant Discount Rate =	3.02%		
12) Utility Discount Rate =	5.79%		
13) Societal Discount Rate =	3.02%		
14) General Input Data Year =	2020		
15a) Project Analysis Year 1 =	2021		
15b) Project Analysis Year 2 =			
15c) Project Analysis Year 3 =			

Cost Summary		2021	Test Results	Triennial NPV	Triennial B/C
Utility Cost per Participant =	\$3,129.80		Ratepayer Impact Measure Test	(\$25,523)	0.44
Cost per Participant per MCF =	\$346.25		Utility Cost Test	\$4,798	1.31
Lifetime Energy Reduction (MCF)	4,740		Societal Test	\$22,273	2.29
Societal Cost per MCF	\$3.64		Participant Test	\$37,514	3.18

Company: Great Plains Natural Gas Co.
Project: Low Income Furnace and Boiler Tune-up Program

Input Data		2021		
1) Retail Rate (\$/MCF) =	\$6.7358	16 Utility Project Costs		
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$0	
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$0	
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$0	
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$175	
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	2	
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	3.7	
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh	
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh	
Escalation Rate =	3.59%	23) Number of Participants =	-	
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	0	
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	#DIV/0!	
Escalation Rate =	2.30%			
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.0198			
Escalation Rate =	2.30%			
11) Participant Discount Rate =	3.02%			
12) Utility Discount Rate =	5.79%			
13) Societal Discount Rate =	3.02%			
14) General Input Data Year =	2020			
15a) Project Analysis Year 1 =	2021			
15b) Project Analysis Year 2 =				
15c) Project Analysis Year 3 =				
Cost Summary		Test Results		Triennial
	2021			NPV
Utility Cost per Participant =	#DIV/0!	Ratepayer Impact Measure Test		\$0
Cost per Participant per MCF =	#DIV/0!	Utility Cost Test		\$0
Lifetime Energy Reduction (MCF)	0	Societal Test		\$0
Societal Cost per MCF	#DIV/0!	Participant Test		\$0
				Triennial
				B/C

Company: Great Plains Natural Gas Co.
Project: Low Income Water Heater with
Temperature Setback

Input Data		2021		
1) Retail Rate (\$/MCF) =	\$6.7358	16 Utility Project Costs		
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$0	
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$0	
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$0	
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$0	
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	2	
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	0.9	
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh	
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh	
Escalation Rate =	3.59%	23) Number of Participants =	-	
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	0	
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	#DIV/0!	
Escalation Rate =	2.30%			
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.0198			
Escalation Rate =	2.30%			
11) Participant Discount Rate =	3.02%			
12) Utility Discount Rate =	5.79%			
13) Societal Discount Rate =	3.02%			
14) General Input Data Year =	2020			
15a) Project Analysis Year 1 =	2021			
15b) Project Analysis Year 2 =				
15c) Project Analysis Year 3 =				
Cost Summary		Test Results		Triennial
	2021			NPV
Utility Cost per Participant =	#DIV/0!	Ratepayer Impact Measure Test		\$0
Cost per Participant per MCF =	#DIV/0!	Utility Cost Test		\$0
Lifetime Energy Reduction (MCF)	0	Societal Test		\$0
Societal Cost per MCF	#DIV/0!	Participant Test		\$0
				Triennial
				B/C

Conservation Improvement Program (CIP)

BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

Company: **Great Plains Natural Gas Co.**
Project: **Total Commercial & Industrial Portfolio**

Input Data		2021	
1) Retail Rate (\$/MCF) =	\$5.1485	16 Utility Project Costs	
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$77,949
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.00	16 b) Incentive Costs =	\$64,234
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$142,183
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$8,533
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
5) Peak Reduction Factor =	0.09%	20) Project Life (Years) =	17
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	91.4
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	394 kWh
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
Escalation Rate =	3.59%	23) Number of Participants =	64
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	5,851
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	\$1,003.66
Escalation Rate =	2.30%		
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.01984		
Escalation Rate =	2.30%		
11) Participant Discount Rate =	5.79%		
12) Utility Discount Rate =	5.79%		
13) Societal Discount Rate =	3.02%		
14) General Input Data Year =	2020		
15a) Project Analysis Year 1 =	2021		
15b) Project Analysis Year 2 =			
15c) Project Analysis Year 3 =			

Cost Summary		Test Results		Triennial NPV	Triennial B/C
Utility Cost per Participant =	\$2,221.61	Ratepayer Impact Measure Test		(\$310,310)	0.51
Cost per Participant per MCF =	\$117.67	Utility Cost Test		\$183,453	2.29
Lifetime Energy Reduction (MCF)	99,467	Societal Test		\$840	1.00
Societal Cost per MCF	\$6.27	Participant Test		\$11,885	1.02

Company: Great Plains Natural Gas Co.
Project: Total Commercial Space Heating Equipment

Input Data		2021		
1) Retail Rate (\$/MCF) =	\$6.2857	16 Utility Project Costs		
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$37,719	
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$31,082	
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$68,801	
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$1,843	
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	20	
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	50.0	
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	560 kWh	
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh	
Escalation Rate =	3.59%	23) Number of Participants =	45	
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	2,251	
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	\$690.71	
Escalation Rate =	2.30%			
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.01984			
Escalation Rate =	2.30%			
11) Participant Discount Rate =	5.79%			
12) Utility Discount Rate =	5.79%			
13) Societal Discount Rate =	3.02%			
14) General Input Data Year =	2020			
15a) Project Analysis Year 1 =	2021			
15b) Project Analysis Year 2 =				
15c) Project Analysis Year 3 =				
Cost Summary		Test Results		
2021		Triennial NPV		Triennial B/C
Utility Cost per Participant =	\$1,528.91	Ratepayer Impact Measure Test	(\$143,338)	0.58
Cost per Participant per MCF =	\$67.44	Utility Cost Test	\$125,400	2.82
Lifetime Energy Reduction (MCF)	45,020	Societal Test	\$245,325	3.03
Societal Cost per MCF	\$2.68	Participant Test	\$216,885	3.62

Company: **Great Plains Natural Gas Co.**
Project: **Total Commercial Water Heating Equipment**

Input Data		2021		
1) Retail Rate (\$/MCF) =	\$6.2857	16 Utility Project Costs		
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$3,398	
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$2,800	
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$6,198	
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$1,350	
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	15	
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	50.1	
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh	
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh	
Escalation Rate =	3.59%	23) Number of Participants =	8	
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	401	
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	\$350.00	
Escalation Rate =	2.30%			
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.01984			
Escalation Rate =	2.30%			
11) Participant Discount Rate =	5.79%			
12) Utility Discount Rate =	5.79%			
13) Societal Discount Rate =	3.02%			
14) General Input Data Year =	2020			
15a) Project Analysis Year 1 =	2021			
15b) Project Analysis Year 2 =				
15c) Project Analysis Year 3 =				
Cost Summary		Test Results		
	2021		Triennial NPV	Triennial B/C
Utility Cost per Participant =	\$774.75	Ratepayer Impact Measure Test	(\$16,412)	0.62
Cost per Participant per MCF =	\$42.41	Utility Cost Test	\$20,414	4.29
Lifetime Energy Reduction (MCF)	6,015	Societal Test	\$30,023	3.11
Societal Cost per MCF	\$2.36	Participant Test	\$28,827	3.67

Company: Great Plains Natural Gas Co.
Project: Total Commercial Boiler Equipment

Input Data		2021		
1) Retail Rate (\$/MCF) =	\$6.2857	16 Utility Project Costs		
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$1,820	
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$1,500	
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$3,320	
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$2,905	
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	2	
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	44.9	
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh	
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh	
Escalation Rate =	3.59%	23) Number of Participants =	7	
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	314	
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	\$214.29	
Escalation Rate =	2.30%			
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.01984			
Escalation Rate =	2.30%			
11) Participant Discount Rate =	5.79%			
12) Utility Discount Rate =	5.79%			
13) Societal Discount Rate =	3.02%			
14) General Input Data Year =	2020			
15a) Project Analysis Year 1 =	2021			
15b) Project Analysis Year 2 =				
15c) Project Analysis Year 3 =				
Cost Summary		Test Results		
	2021		Triennial NPV	Triennial B/C
Utility Cost per Participant =	\$474.29	Ratepayer Impact Measure Test	(\$4,460)	0.40
Cost per Participant per MCF =	\$75.26	Utility Cost Test	(\$349)	0.89
Lifetime Energy Reduction (MCF)	628	Societal Test	(\$17,819)	0.20
Societal Cost per MCF	\$35.28	Participant Test	(\$14,724)	0.28

Company: Great Plains Natural Gas Co.
Project: Total Commercial Food Service
Equipment Programs

Input Data		2021		
1) Retail Rate (\$/MCF) =	\$6.2857	16 Utility Project Costs		
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$0	
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$0	
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$0	
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	#DIV/0!	
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
5) Peak Reduction Factor =	1.00%	20) Project Life (Years) =	#DIV/0!	
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	#DIV/0!	
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	#DIV/0!	
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh	
Escalation Rate =	3.59%	23) Number of Participants =	-	
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	0	
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	#DIV/0!	
Escalation Rate =	2.30%			
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.01984			
Escalation Rate =	2.30%			
11) Participant Discount Rate =	5.79%			
12) Utility Discount Rate =	5.79%			
13) Societal Discount Rate =	3.02%			
14) General Input Data Year =	2020			
15a) Project Analysis Year 1 =	2021			
15b) Project Analysis Year 2 =				
15c) Project Analysis Year 3 =				
Cost Summary		Test Results	Triennial NPV	Triennial B/C
Utility Cost per Participant =	#DIV/0!	Ratepayer Impact Measure Test	#DIV/0!	#DIV/0!
Cost per Participant per MCF =	#DIV/0!	Utility Cost Test	#DIV/0!	#DIV/0!
Lifetime Energy Reduction (MCF)	#DIV/0!	Societal Test	#DIV/0!	#DIV/0!
Societal Cost per MCF	#DIV/0!	Participant Test	#DIV/0!	#DIV/0!

BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

Input Data		2021
1) Retail Rate (\$/MCF) =	\$5.0575	16 Utility Project Costs
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =
		16 b) Incentive Costs =
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 c) Total Utility Project Costs =
Escalation Rate =	3.59%	
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =
Escalation Rate =	4.69%	Escalation Rate =
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =
Escalation Rate =	4.69%	Escalation Rate =
5) Peak Reduction Factor =	0.00%	20) Project Life (Years) =
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =
Escalation Rate =	4.69%	
		22) Avg Non-Gas Fuel Units/Part. Saved =
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =
Escalation Rate =	3.59%	
		23) Number of Participants =
8) Non-Gas Fuel Loss Factor	7.70%	
		24) Total Annual MCF Saved =
9) Gas Environmental Damage Factor =	\$2.0700	
Escalation Rate =	2.30%	25) Incentive/Participant =
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.01984	
Escalation Rate =	2.30%	
11) Participant Discount Rate =	5.79%	
12) Utility Discount Rate =	5.79%	
13) Societal Discount Rate =	3.02%	
14) General Input Data Year =	2020	
15a) Project Analysis Year 1 =	2021	
15b) Project Analysis Year 2 =		
15c) Project Analysis Year 3 =		

			Triennial	Triennial
Cost Summary	2021	Test Results	NPV	B/C
Utility Cost per Participant =	\$15,966.00	Ratepayer Impact Measure Test	(\$138,703)	0.50
Cost per Participant per MCF =	\$30.99	Utility Cost Test	\$74,476	2.17
Lifetime Energy Reduction (MCF)	43,275	Societal Test	(\$212,916)	0.54
Societal Cost per MCF	\$10.79	Participant Test	(\$189,969)	0.56

Company: Great Plains Natural Gas Co.
Project: Commercial Building Certification Program

Input Data		2021	
1) Retail Rate (\$/MCF) =	\$5.0575	16 Utility Project Costs	
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$0
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$0
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$0
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$8,000
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0
Escalation Rate =	4.69%	Escalation Rate =	2.30%
5) Peak Reduction Factor =	0.00%	20) Project Life (Years) =	-
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	-
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
Escalation Rate =	3.59%	23) Number of Participants =	-
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	0
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	#DIV/0!
Escalation Rate =	2.30%		
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.01984		
Escalation Rate =	2.30%		
11) Participant Discount Rate =	5.79%		
12) Utility Discount Rate =	5.79%		
13) Societal Discount Rate =	3.02%		
14) General Input Data Year =	2020		
15a) Project Analysis Year 1 =	2021		
15b) Project Analysis Year 2 =			
15c) Project Analysis Year 3 =			

Cost Summary		Test Results		Triennial NPV	Triennial B/C
Utility Cost per Participant =	#DIV/0!	Ratepayer Impact Measure Test		\$0	#DIV/0!
Cost per Participant per MCF =	#DIV/0!	Utility Cost Test		\$0	#DIV/0!
Lifetime Energy Reduction (MCF)	0	Societal Test		\$0	#DIV/0!
Societal Cost per MCF	#DIV/0!	Participant Test		\$0	#DIV/0!

Company: Great Plains Natural Gas Co.
Project: Commercial Energy Assessment Program

Input Data		2021		
1) Retail Rate (\$/MCF) =	\$5.0575	16 Utility Project Costs		
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$0	
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$0	
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$0	
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$1,100	
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
5) Peak Reduction Factor =	0.00%	20) Project Life (Years) =	-	
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	-	
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh	
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh	
Escalation Rate =	3.59%	23) Number of Participants =	-	
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	0	
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	#DIV/0!	
Escalation Rate =	2.30%			
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.01984			
Escalation Rate =	2.30%			
11) Participant Discount Rate =	5.79%			
12) Utility Discount Rate =	5.79%			
13) Societal Discount Rate =	3.02%			
14) General Input Data Year =	2020			
15a) Project Analysis Year 1 =	2021			
15b) Project Analysis Year 2 =				
15c) Project Analysis Year 3 =				
Cost Summary		Test Results		Triennial
	2021		NPV	B/C
Utility Cost per Participant =	#DIV/0!	Ratepayer Impact Measure Test	\$0	#DIV/0!
Cost per Participant per MCF =	#DIV/0!	Utility Cost Test	\$0	#DIV/0!
Lifetime Energy Reduction (MCF)	0	Societal Test	\$0	#DIV/0!
Societal Cost per MCF	#DIV/0!	Participant Test	\$0	#DIV/0!

Company: Great Plains Natural Gas Co.
Project: Industrial Energy Assessment Program

Input Data		2021		
1) Retail Rate (\$/MCF) =	\$5.0575	16 Utility Project Costs		
Escalation Rate =	4.69%	16 a) Administrative & Operating Costs =	\$0	
2) Non-Gas Fuel Retail Rate (\$/Fuel Unit) =	\$0.000	16 b) Incentive Costs =	\$0	
Escalation Rate =	3.59%	16 c) Total Utility Project Costs =	\$0	
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh	17) Direct Participant Costs (\$/Part.) =	\$3,400	
3) Commodity Cost (\$/MCF) =	\$3.25	18) Participant Non-Energy Costs (Annual \$/Part.) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
4) Demand Cost (\$/Unit/Yr) =	\$126.03	19) Participant Non-Energy Savings (Annual \$/Part) =	\$0	
Escalation Rate =	4.69%	Escalation Rate =	2.30%	
5) Peak Reduction Factor =	0.00%	20) Project Life (Years) =	-	
6) Variable O&M (\$/MCF) =	\$0.0320	21) Avg. MCF/Part. Saved =	-	
Escalation Rate =	4.69%	22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh	
7) Non-Gas Fuel Cost (\$/Fuel Unit) =	\$0.02657	22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh	
Escalation Rate =	3.59%	23) Number of Participants =	-	
8) Non-Gas Fuel Loss Factor	7.70%	24) Total Annual MCF Saved =	0	
9) Gas Environmental Damage Factor =	\$2.0700	25) Incentive/Participant =	#DIV/0!	
Escalation Rate =	2.30%			
10) Non Gas Fuel Enviro. Damage Factor (\$/Unit) =	\$0.01984			
Escalation Rate =	2.30%			
11) Participant Discount Rate =	5.79%			
12) Utility Discount Rate =	5.79%			
13) Societal Discount Rate =	3.02%			
14) General Input Data Year =	2020			
15a) Project Analysis Year 1 =	2021			
15b) Project Analysis Year 2 =				
15c) Project Analysis Year 3 =				
Cost Summary		Test Results		Triennial
	2021			NPV
Utility Cost per Participant =	#DIV/0!	Ratepayer Impact Measure Test		\$0
Cost per Participant per MCF =	#DIV/0!	Utility Cost Test		\$0
Lifetime Energy Reduction (MCF)	0	Societal Test		\$0
Societal Cost per MCF	#DIV/0!	Participant Test		\$0
				Triennial
				B/C

**GREAT PLAINS NATURAL GAS CO.
GAS UTILITY - MINNESOTA
CONSERVATION COST RECOVERY ADJUSTMENT
CIP RATE TRUE-UP FILING
DOCKET NO. G004/CIP-20-477**

	Projected Dk 1/	Volumetric Allocation	Total Under/(Over) Recovery	Proposed CCRA	Current CCRA 2/	Change
Residential	1,507,517	24.6404%	\$121,366	\$0.0805	\$0.0895	(\$0.0090)
Firm General	1,299,515	21.2406%	104,620	0.0805	0.0895	(0.0090)
Interruptible	906,833	14.8222%	73,006	0.0805	0.0895	(0.0090)
Transportation	2,404,199	39.2968%	193,556	0.0805	0.0895	(0.0090)
Total	<u>6,118,064</u>	<u>100.0000%</u>	<u>\$492,548</u>			

Rate change for the average residential customer using 77.6 Dk per year.

	Dk 3/	CCRC	CCRA	Total	Total CIP Cost
Current Rate	77.6	\$0.0818 4/	\$0.0895 2/	\$0.1713	\$13.29
Proposed Rate	77.6	0.0818	0.0805	0.1623	12.59
Change		\$0.0000	(\$0.0090)	(\$0.0090)	

The average residential customer will pay an annual CIP cost of \$12.59 per year.

1/ Docket No. G004/M-12-439 designates using projected Dk throughput for the period in which the CCRA is proposed to be in effect. The proposed time period is 12 months running from September 2022 through August 2023.

2/ Authorized in Docket No. G004/M-21-305, effective February 1, 2022

3/ Reflects average normalized 2021 residential Dk per customer.

4/ Authorized in Docket No. G004/GR-19-511, effective April 1, 2021.

**GREAT PLAINS NATURAL GAS CO.
GAS UTILITY - MINNESOTA
CONSERVATION COST RECOVERY ADJUSTMENT
CCRA FILING AND DEMAND INCENTIVE**

	<u>Beginning Balance</u>	<u>Expenses</u>	<u>Carrying Charges</u>	<u>Billed Recovery</u>	<u>Net Activity</u>	<u>Ending Balance</u>
<u>2021 Activity</u>						
Actuals: January - December	(\$348,197)	\$461,681	(\$7,141)	\$119,060	\$335,480	(\$12,717)
<u>2022 Activity</u>						
Actuals: January - March	(\$12,717)	\$94,106	(\$95)	\$225,336	(\$131,325)	
Projected: April - August		338,373	(1,709)	207,227	129,437	
	<u>(\$12,717)</u>	<u>\$432,479</u>	<u>(\$1,804)</u>	<u>\$432,563</u>	<u>(\$1,888)</u>	<u>(\$14,605)</u>
<u>2023 Activity</u>						
Projected: September 2022 - August 2023	(\$14,605)	\$1,008,433	(\$824)	\$500,456 1/	\$507,153	\$492,548
Projected Balance September 1, 2023	<u>(\$12,717)</u>	<u>\$1,440,912</u>	<u>(\$2,628)</u>	<u>\$933,019</u>	<u>\$505,265</u>	<u>\$492,548</u>
2021 DSM Incentive to be recorded in September 2022						<u>0 2/</u>
Total projected Under/(Over) Recovery to be recovered through CCRA from September 2021 - August 2022						<u>\$492,548</u>

1/ Projected CCRC recovery from September 2022 through August 2023.

2/ The actual Achievement Level of 0.25% was less than the Earning Threshold of 0.70%.

**GREAT PLAINS NATURAL GAS CO.
GAS UTILITY - MINNESOTA
CONSERVATION COST RECOVERY ADJUSTMENT
SUMMARY OF BALANCE
2022-2023**

	Beginning Balance	Carrying Charge 1/	Current Month Expense	Billed Recovery			Ending Balance
				CCRC 2/	CCRA 2/	Total	
Balance at December 31, 2021							(\$12,717)
January 2022	(\$12,717)	(\$37)	\$32,391	\$76,804	(\$56,052)	\$20,752	(\$1,115)
February	(1,115)	(1)	28,010	76,975	(31,011)	45,964	(19,070)
March	(19,070)	(57)	33,705	76,900	81,720	158,620	(144,042)
Total		<u>(\$95)</u>	<u>\$94,106</u>	<u>\$230,679</u>	<u>(\$5,343)</u>	<u>\$225,336</u>	
<u>Estimate</u>							
April 2022	(\$144,042)	(\$444)	\$68,276	\$35,642	\$38,997	\$74,639	(\$150,849)
May	(150,849)	(465)	67,547	18,408	20,141	38,549	(122,316)
June	(122,316)	(377)	68,002	15,367	16,814	32,181	(86,872)
July	(86,872)	(268)	62,904	12,518	13,696	26,214	(50,450)
August	(50,450)	(155)	71,644	17,021	18,623	35,644	(14,605)
Total		<u>(\$1,709)</u>	<u>\$338,373</u>	<u>\$98,956</u>	<u>\$108,271</u>	<u>\$207,227</u>	
<u>Estimate</u>							
September 2022	(\$14,605)	(\$45)	\$131,908 3/	\$24,162	\$23,778	\$47,940	\$69,318
October	69,318	213	83,842	47,532	46,777	94,309	59,064
November	59,064	182	82,113	62,720	61,723	124,443	16,916
December	16,916	52	274,104	70,325	69,208	139,533	151,539
January 2023	151,539	467	32,654	75,764	74,560	150,324	34,336
February	34,336	106	28,293	65,121	64,086	129,207	(66,472)
March	(66,472)	(205)	33,972	55,513	54,631	110,144	(142,849)
April	(142,849)	(440)	68,959	35,835	35,265	71,100	(145,430)
May	(145,430)	(448)	68,147	18,477	18,183	36,660	(114,391)
June	(114,391)	(352)	68,654	15,400	15,155	30,555	(76,644)
July	(76,644)	(236)	63,482	12,552	12,353	24,905	(38,303)
August	(38,303)	(118)	72,305	17,055	16,784	33,839	45
Total		<u>(\$824)</u>	<u>\$1,008,433</u>	<u>\$500,456</u>	<u>\$492,503</u>	<u>\$992,959</u>	

1/ Reflects the cost of short-term debt of 3.693% authorized in Docket No. G004/GR-19-511.

2/ Rates effective with service rendered on and after:

<u>Effective April 1, 2021</u>	CCRC Docket No. G004/GR-19-511 \$0.0818	CCRA Docket No. G-004/CIP-20-477 \$0.0895
<u>Proposed Rates: September 1, 2022</u>	CCRC Docket No. G004/GR-19-511 \$0.0818	CCRA Docket No. G-004/CIP-22- \$0.0805

3/ Includes 2021 projected financial incentive of: \$0

**GREAT PLAINS NATURAL GAS CO.
GAS UTILITY - MINNESOTA
CONSERVATION COST RECOVERY ADJUSTMENT
SUMMARY OF BALANCE
2021**

	Beginning Balance	Carrying Charge 1/	Current Month Expense	Billed Recovery			Ending Balance
				CCRC 2/	CCRA 3/	Total	
Balance at December 31, 2020							(\$348,197)
January 2021	(\$348,197)	(\$467)	\$23,401	\$40,432	(\$24,505)	\$15,927	(\$341,190)
February	(341,190)	(457)	28,347	43,810	(26,552)	17,258	(330,558)
March	(330,558)	(445)	55,575	41,743	(25,301)	16,442	(291,870)
April	(291,870)	(898)	26,585	32,917	(20,988)	11,929	(278,112)
May	(278,112)	(856)	26,295	31,788	(23,187)	8,601	(261,274)
June	(261,274)	(804)	26,458	21,944	(16,023)	5,921	(241,541)
July	(241,541)	(743)	24,495	16,841	(12,297)	4,544	(222,333)
August	(222,333)	(684)	27,872	12,906	(9,424)	3,482	(198,627)
September	(198,627)	(611)	51,342	13,745	(10,041)	3,704	(151,600)
October	(151,600)	(467)	32,649	24,579	(17,946)	6,633	(126,051)
November	(126,051)	(388)	31,947	36,950	(26,968)	9,982	(104,474)
December	(104,474)	(321)	106,715	54,171	(39,534)	14,637	(12,717)
		(\$7,141)	\$461,681	\$371,826	(\$252,766)	\$119,060	
Balance at December 31, 2021							(\$12,717)

1/ January through March 2021 reflects the cost of short-term debt of 1.610% authorized in Docket No. G004/GR-15-879.

Effective April 1, 2021, authorized in Docket No. G004/GR-19-511, reflects the cost of short-term debt of 3.693%.

2/ Rates effective with service rendered on and after:

<u>Effective January 1, 2021</u>	CCRC Docket No. G004/M-20-448 \$0.0818	CCRA Docket No. G-004/CIP-20-477 (\$0.0597)
<u>Effective April 1, 2021</u>	CCRC Docket No. G004/GR-19-511 \$0.0818	CCRA Docket No. G004/GR-19-511 \$0.0895

GREAT PLAINS NATURAL GAS CO. PERFORMANCE INCENTIVE MODEL

Attachment E
Page 1 of 1

Inputs	
3-year Weather-Normalized Sales Average (Dth)	6,089,861
1.0% Energy Savings	60,899
Size of steps in Energy Savings	6,090
Approved CIP Budget	\$996,619
Approved CIP Energy Goal	60,926
Estimated Net Benefits at Approved Goal	\$1,612,239
Energy savings at 1.5%	91,348

Incentive Calibration	
Maximum Percent of Benefits Awarded	10.00%
Earning Threshold	0.70%
Maximum Achievement Level	1.20%
Increment	7.5 % Points

Estimated Incentive Levels

Achievement Level (% of sales)	Energy Saved	Percent of Benefits Awarded	Estimated Benefits Achieved	Incentive Award	Average Incentive per unit Saved	Incremental Incentive Units Saved
0.0%	0	0.00%	\$0	\$0	\$0.00	-
0.1%	6,090	0.00%	\$161,151	\$0	\$0.00	\$0.00
0.2%	12,180	0.00%	\$322,303	\$0	\$0.00	\$0.00
0.3%	18,270	0.00%	\$483,454	\$0	\$0.00	\$0.00
0.4%	24,359	0.00%	\$644,606	\$0	\$0.00	\$0.00
0.5%	30,449	0.00%	\$805,757	\$0	\$0.00	\$0.00
0.6%	36,539	0.00%	\$966,909	\$0	\$0.00	\$0.00
0.7%	42,629	6.25%	\$1,128,060	\$70,504	\$1.65	\$11.58
0.8%	48,719	7.00%	\$1,289,211	\$90,245	\$1.85	\$3.24
0.9%	54,809	7.75%	\$1,450,363	\$112,403	\$2.05	\$3.64
1.0%	60,899	8.50%	\$1,611,514	\$136,979	\$2.25	\$4.04
1.1%	66,988	9.25%	\$1,772,666	\$163,972	\$2.45	\$4.43
1.2%	73,078	10.00%	\$1,933,817	\$193,382	\$2.65	\$4.83
1.3%	79,168	10.00%	\$2,094,968	\$209,497	\$2.65	\$2.65
1.4%	85,258	10.00%	\$2,256,120	\$225,612	\$2.65	\$2.65
1.5%	91,348	10.00%	\$2,417,271	\$241,727	\$2.65	\$2.65
1.6%	97,438	10.00%	\$2,578,423	\$257,842	\$2.65	\$2.65
1.7%	103,528	10.00%	\$2,739,574	\$273,957	\$2.65	\$2.65
1.8%	109,617	10.00%	\$2,900,726	\$290,073	\$2.65	\$2.65
1.9%	115,707	10.00%	\$3,061,877	\$306,188	\$2.65	\$2.65
2.0%	121,797	10.00%	\$3,223,028	\$322,303	\$2.65	\$2.65

2021 Great Plains

Projected Gas CIP Incentive Results	
Spending	\$461,682
Energy Saved (Dth)	15,154
Net Benefits Achieved	\$251,587
Resulting Incentive	
Achievement Level	0.25%
Percent of Net Benefits Awarded	0.0000%
Financial Incentive Award	
	\$0
Incentive/First Year Dth Saved \$	
	\$0.0000
Incentive/Net Benefits	
	0.00%
Incentive/CIP Expenditures	
	0.00%