GREAT PLAINS
NATURAL GAS CO.
A Division of Montana-Dakota Utilities Co.

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April 30, 2020

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

Ms. Jessica Burdette
Manager
Division of Energy Resources
Minnesota Department of Commerce
85 Seventh Place East, Suite 500
St. Paul, MN 55101-2198

Re: Docket No. G004/M-20-____
CIP Tracker and Demand Side Management Incentive

Docket No. G004/CIP-16-121
2019 Conservation Improvement Program Status Report

Dear Mr. Seuffert and Ms. Burdette:

Great Plains Natural Gas Co. (Great Plains), a Division of Montana-Dakota Utilities Co., herewith electronically files its 2019 Conservation Improvement Program (CIP) Status Report for the period of January 1, 2019 through December 31, 2019, its 2019 Conservation Improvement Program (CIP) Tracker filing (CCRA), and the Demand Side Management (DSM) Incentive for the period of January 1, 2019 through December 31, 2019.

The 2019 CIP expenditures were $499,310, which exceeds the minimum spending requirement of $121,325, and represents 55 percent of the authorized budget for 2019, as established by Decision of the Deputy Commissioner, Department of Commerce on November 3, 2016. Great Plains' programs provided total annual energy savings of 13,175 dk, which was 23 percent of the authorized level. The total lifetime energy reduction related to the 2019 CIP projects is 184,450 dk. The variance in expenditures and energy savings from the authorized portfolio expenditures for 2019 is primarily attributable to low participation in the Commercial and Industrial Program and an absence of Custom Projects. The continuing low commodity price of natural gas has decreased the incentive for customers to partake in Custom Projects. Excluding this

line item, 2019 expenditures were at approximately 102 percent of the budgeted expenditures with energy savings at 99 percent of the authorized level.

On September 27, 2019, Great Plains filed a Petition seeking Minnesota Public Utility Commission ("Commission") authorization to increase natural gas rates for utility service in Docket No. G004/GR-19-511. As a part of that filing, the Company will be establishing a new base CIP referred to as the Conservation Cost Recovery Charge (CCRC). The CCRC is only updated at the time of a rate case filing. The Company proposed a CCRC of $0.0818 per dk in the pending rate case which has not been disputed by any of the parties in the pending rate case docket (GR-19-511) and is portrayed as a resolved issue in the joint Brief submitted by the parties[1]. Therefore, Great Plains has incorporated the newly established CCRC into this filing.

To incorporate the new CCRC, Great Plains prepared this filing with certain assumptions. The collection of the current CCRC and CCRA has been presented assuming a January 1, 2021 implementation of final rates in the pending rate case (GR-19-511). The timeline is consistent with the Company's previous rate case filing in Docket No. G004/GR-15-879. This allows for a coordinated update of both the CCRC and CCRA. Due to the insignificant change in the total CIP per unit rate (combined CCRC and CCRA), the timing of the implementation, whether prior to or subsequent to January 1, 2021, will not materially change the total CIP charges collected or the under collected balances and will not harm Great Plains' customers.

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' rate cases, Docket Nos. G004/GR-15-879 and G004/GR-19-511 (also a resolved issue), as appropriate[2]. There was no financial incentive achieved for 2019. Please see Attachment E, page 4 for a summary of the projected CIP tracker activity and ending balance on August 2021.

The CIP Tracker filing reflects a proposed CCRA of ($0.0597) per dk, which is a decrease of $0.0260 per dk from the current CCRA. As previously noted, Great Plains has also incorporated an updated CCRC (proposed in Docket No. G004/GR-19-511) of $0.0818 per dk, which is an increase of $0.0262 per dk. The proposed CCRC and CCRA result in a total of $0.0221 per dk, an increase of $0.0002 from the current combined total CCRC and CCRA. For a typical residential customer using 75 dk per year, this reflects an increase of $0.02 annually. Great Plains requests that the proposed CCRA be implemented simultaneously with the implementation of final rates from its pending rate case (Docket No. GR-19-511). Attachment A provides the Conservation Improvement Program Adjustment Clause tariff, 14th Revised Sheet No. 5-110 and 7th Revised Sheet No. 5-111 reflecting the proposed simultaneous

[1] Docket No. GR-19-511, Joint Proposed Findings on Undisputed Issues submitted on April 15, 2020, at page 13.
[2] Docket No. GR-19-511, Joint Proposed Findings on Undisputed Issues submitted on April 15, 2020, at page 19.

implementation of rates in this docket and Docket No. GR-19-511. Again, the CCRC pending in Docket No. G004/GR-19-511 is shown on Sheet No. 5-11 attached hereto.

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' 2019 CIP program do not qualify the Company to receive an incentive for the 2019 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 2019 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.
2019 CONSERVATION INCENTIVE PROGRAMS (CIP) STATUS REPORT

Pursuant to Minnesota Statute 7690.0550 and the Minnesota Department of Commerce, Division of Energy Resources (Department) November 3, 2016 Decision on the 2017-2019 CIP Triennial Filing in Docket G004/CIP-16-121, Great Plains submits this status report on its Conservation Improvement Program (CIP). This report covers the 2019 CIP year: January 1, 2019 through December 31, 2019.

I. Overall Summary:

The approved 2019 budget for the CIP was $902,858, while Great Plains' actual expenditures for the twelve-month period ending December 31, 2019 were $499,310, which exceeds the minimum spending requirement of $121,325. The low-income expenditures of $116,602 exceeded the minimum spending requirement of $50,375 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 2019.

Great Plains achieved 55.3 percent of its total expenditure goal and 67.5 percent of its Low-income expenditure goal, as demonstrated below:

	Expenditures			% of
	Authorized 1/	Actual	Difference	Authorized
Residential and Small Commercial				
Space Heating Equipment	$145,018	$241,272	$96,254	166.4%
Water Heating Equipment	14,196	14,333	237	101.7%
Attic Insulation	409	209	(200)	51.1%
Pilotless Fireplace	511	209	(302)	40.9%
Residential Energy Assessment	22,116	8,042	(14,074)	36.4%
Total Residential	$182,250	$264,165	$81,915	144.9%
Low Income				
Weatherization	$97,279	$63,829	($33,450)	65.6%
Furnace Replacement	71,315	52,472	(18,843)	73.6%
Furnace/Boiler Tune-up	4,257	301	(3,965)	7.1%
Hot Water Heater Temp Set-Back	0	0	0	0.0%
Total Low-Income	$172,851	$116,602	($56,249)	67.5%
Commercial & Industrial				
Space Heating Equipment	$48,132	$107,312	$59,180	223.0%
Water Heating Equipment	2,807	839	(1,968)	29.9%
Commercial Boiler Equipment	28,358	1,198	(27,160)	4.2%
Foodservice Equipment	2,552	0	(2,552)	0.0%
Custom	421,087	0	(421,087)	0.0%
Building Certification Program	5,103	0	(5,103)	0.0%

Commercial Energy Assessment	6,062	0	(6,062)	0.0%
Industrial Energy Assessment	7,656	0	(7,656)	0.0%
Total Commercial and Industrial	$521,757	$109,349	($412,408)	21.0%
CIP Assessments	26,000	9,194	(16,806)	35.4%
Total CIP Program	$902,858	$499,310	($403,548)	55.3%

1/ 2017-2019 Triennial Plan for Natural Gas CIP, Docket No. G004/CIP-16-121. Approved by the MN DOC on November 3, 2016.

The actual 2019 Residential and Small Commercial Program expenditures, including administration expenses, were 44.9 percent over 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 50.7 percent over authorized participation and 66.4 percent over budgeted expenditures. The variance in participation and expenditures in the Residential and Small Commercial Program is largely offset by the lower than authorized participation and expenditures in the Low Income and Commercial & Industrial Programs. Total Portfolio expenditures were 55.3 percent of authorized and participation was 87.6 percent of authorized.

The variance from the authorized total portfolio expenditures for 2019 is primarily attributable to the lower participation in the Commercial and Industrial Program and the absence of Custom Projects. The continuing low commodity price of natural gas has decreased the incentive for customers to partake in custom conservation projects. Excluding this line item, 2019 expenditures were approximately 102 percent of the budgeted expenditures.

Great Plains achieved 23.0 percent of its 2019 authorized dk savings target.

	Dk Savings			% of
	Authorized 1/	Actual	Difference	Authorized
Residential and Small Commercial				
Space Heating Equipment	6,063	8,862	2,799	146.2%
Water Heating Equipment	1,075	746	(329)	69.4%
Attic Insulation	13	4	(9)	30.8%
Pilotless Fireplace	22	9	(13)	40.9%
Residential Energy Assessment	0	0	0	0.0%
Total Residential	7,173	9,621	2,448	134.1%
Low Income				
Weatherization	1,050	403	(647)	38.4%
Furnace Replacement	323	620	297	192.0%
Furnace/Boiler Tune-up	74	4	(70)	5.4%
Hot Water Heater Temp Set-Back	14	0	(14)	0.0%
Total Low-Income	1,461	1,027	(434)	70.3%
Commercial & Industrial				
Space Heating Equipment	2,949	2,451	(498)	83.1%
Water Heating Equipment	161	0	(161)	0.0%

Commercial Boiler Equipment	1,306	76	(1,230)	5.8%
Foodservice Equipment	257	0	(257)	0.0%
Custom	44,000	0	(44,000)	0.0%
Building Certification Program	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	48,673	2,527	(46,146)	5.2%
Total CIP Program	57,307	13,175	(44,132)	23.0%

1/ 2017-2019 Triennial Plan for Natural Gas CIP, Docket No. G004/CIP-16-121. Approved by the MN DOC on November 3, 2016.

The overall dk savings achieved was 13,175 dk, which is less than the authorized goal of 57,307 dk for the year. The shortfall in actual dk savings from the authorized 2019 portfolio savings is attributable to the absence of Custom Projects. Excluding this line item, 2019 dk savings were approximately 123 percent of the authorized dk savings.

In summary:

- The Residential Space Heating Equipment program provided a decrease in savings of 198dk compared to last year, but 2,799 in dk savings over the authorized dk savings.
- The Custom Program had no participation in 2019, a decrease in savings of 24,646 dk over last year.
- The total portfolio cost per dk increased from $15.70 in 2018 to $37.90 in 2019.

Great Plains plans to build upon its program successes in the residential programs, and to continue marketing its programs through its website, bill inserts, direct mail campaigns, 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 the involvement with the custom programs.

The cost per dk for the total portfolio is $37.90 per dk or $22.15 per dk above the authorized level, as shown in the table below. The primary driver for this increase in cost per dk saved compared to authorized is lack of custom projects. The total cost per dk saved for the Residential sector is slightly higher than the authorized cost per dk. The cost per dk saved for the Low-Income sector is lower than authorized. For the Commercial and Industrial sector, the actual cost per dk saved was higher than authorized, once again largely the lack of custom projects.

The authorized and actual cost per dk saved are:

	Cost per Dk Saved			% of
	Authorized 1/	Actual	Difference	Authorized
Residential				
Space Heating Equipment	$23.92	$27.23	$3.31	113.84%
Water Heating Equipment	13.21	19.35	6.14	146.48%
Attic Insulation and Bypass	31.46	52.25	20.79	166.08%
Pilotless Fireplace	23.23	23.22	(0.01)	99.96%
Residential Energy Assessment	0.00	0.00	0.00	0.00%
Total Residential	25.41	27.46	2.05	108.07%

Low Income				
Weatherization	92.65	158.38	65.73	170.94%
Furnace Replacement	220.79	84.63	(136.16)	38.33%
Furnace/Boiler Tune-up	57.53	75.25	17.72	130.80%
Total Low Income	118.31	113.54	(4.77)	95.97%
Commercial & Industrial				
Space Heating Equipment	$16.32	$43.78	$27.46	268.26%
Water Heating Equipment	17.43	0.00	(17.43)	0.00%
Commercial Boiler Equipment	21.71	15.76	(5.95)	72.59%
Foodservice Equipment	9.93	0.00	(9.93)	0.00%
Custom	9.57	0.00	(9.57)	0.00%
Building Certification Program	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	$10.72	$43.27	$32.55	403.64%
Total CIP Program 2/	$15.75	$37.90	$22.15	240.63%

1/ 2017-2019 Triennial Plan for Natural Gas CIP, Docket No. G004/CIP-16-121. Approved by the MN DOC on November 3, 2016.
2/ Includes direct assessment charges.

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 programs, which had a Utility Cost Test ratio under 1.00. A single customer participated in the Commercial and Industrial Water Heating Equipment program, with less than one dekatherm saved, which results in BENCOST ratios of 0.0 for the RIM, Utility and Societal tests. The results of the cost/benefit analysis are shown below:

	RIM	Utility	Societal	Participant
Residential				
Space Heating Equipment	0.58	2.42	1.57	2.01
Water Heating Equipment	0.60	2.84	1.28	1.96
Attic Insulation and Bypass	0.52	1.59	0.36	0.55
Pilotless Fireplace	0.61	2.97	2.21	3.54
Residential Energy Assessment	0.00	0.00	0.00	1.60
Total Residential Portfolio	0.57	2.27	1.44	1.90
Low Income				
Weatherization	0.31	0.53	1.20	3.65
Furnace Replacement	0.43	0.98	1.75	3.44
Furnace/Boiler Tune-up	0.13	0.16	0.21	1.63
Hot Water Heater Temp Set-back	---	---	---	---
Total Low Income Portfolio	0.37	0.73	1.50	3.53
Commercial and Industrial				
Space Heating Equipment	0.56	1.90	2.38	3.04

Water Heating Equipment 1/	0.00	0.00	0.00	0.16
Commercial Boiler Equipment	0.39	0.77	0.63	1.88
Foodservice Equipment	---	---	---	---
Custom Program	---	---	---	---
Building Certification Program	---	---	---	---
Commercial Energy Assessment	---	---	---	---
Industrial Energy Assessment	---	---	---	---
Total Commercial & Industrial Portfolio	0.52	1.48	1.85	2.41
Total Portfolio	0.52	1.46	1.30	1.85

1/ Includes single customer, but less than 1 dekatherm saved.

The BENCOST Summary for Great Plains' overall CIP program for 2019, as well as the summary for each program is provided as Attachment C. The ESP™ Project Information Sheets will be provided as Attachment D when available.

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

Advertising costs increased in 2019 as Great Plains has increased its' outreach efforts for the CIP programs through billboard advertising and targeted online campaigns. The online campaign utilizes geo-fencing for the zip codes of the towns served by Great Plains to deliver targeted ads. The online campaign consists of banner display static ads targeted inside the geographical area, displayed on over 50,000 mobile apps and over 250,000 websites (i.e. Weather Channel, ESPN, Washington Post, HGTV, Inforum, etc.). Great Plains has not previously used targeted online ads for increasing awareness of the CIP programs and ran the online campaign through the end of 2019.

Program Modifications

Great Plains has not submitted a modification to its 2017–2019 Triennial Plan.

II. Status Report by Project:

Residential and Small Commercial 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 150.7 percent of the participant goal and achieved 146.2 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 89 percent of participants with 11 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 87 percent of participants, duplexes represented 3 percent, town house and condos 9 percent and all other the remaining 1 percent of participants.

2. Water Heating Equipment Upgrade Incentive Program

Great Plains provides a $100 rebate for the installation of a .67 EF or greater natural gas water heater, and a $250 rebate for a .82 EF 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 69.4 percent of authorized dk savings with 101.7 percent of authorized expenditures and 59.9 percent of authorized participation levels in 2019. Both of the .67 EF or greater water heating and Tankless Water Heating programs exceeded the authorized dk savings in 2019. Low Flow Showerhead programs underperformed authorized participation and dk savings levels.

3. Residential Attic Insulation

The Residential Attic Insulation Program provides a dollar per square foot rebate to customers for the installation or replacement of attic insulation. In 2019, Great Plains had 1 participant in this program which represents 50.0% of authorized participation. The dk savings were 30.8% of authorized.

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. Participation, expenditures and dk savings were 40.0 percent, 40.9 percent and 40.9 percent of authorized, respectively.

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 2019 compared to 2018. Participation was 18.5 percent of authorized and expenditures were 36.4 percent of authorized.

6. Low Income Programs

Great Plains offers conservation measures to low income customers via three programs by funding weatherization measures through CAP agencies, funding for an emergency replacement of a furnace or boiler and funding for furnace and boiler tune-ups for qualified low-income customers. The maximum funding available to the CAP agency for a qualified customer is $1,800 for weatherization, $2,500 for a

furnace replacement, $5,000 for a boiler replacement and $200 for a furnace or boiler tune-up.

The Low Income programs participation was 34.8 percent of authorized while dk savings represents 70.3 percent of authorized. A summary of projects and dk savings is provided in Attachment B, pages 8 and 9.

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 72.7 percent of authorized with dk savings at 83.1 percent of authorized. There was a substantial increase in participation from 26 participants in 2018 to 48 participants in 2019.

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 a .64 EF or greater storage type (≥ 40 gallons) water heater and a rebate based on the installed BTUH size of the water heater for 88 percent Condensing Efficiency water heaters.

A single customer participated, which represents 14.3 percent of authorized. There were minimal dk (less than one) savings through the program.

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.

The Commercial and Industrial Boiler Equipment program had 2 participants in 2019. All participants were in the Commercial Boiler Tune-up program. Participation was 4.9% of authorized, with a corresponding dk savings of 5.8% 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: convection ovens, conveyor ovens, fryers, pasta cookers, char-broilers, salamander broilers, rotisserie ovens, and griddles. The second tier provides a $1,000 rebate for the following equipment types: combi-ovens, upright broilers, rotating rack ovens, and steamers.

There were no Foodservice program participants in 2019.

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.

Great Plains did not have any Commercial and Industrial Custom Program participants in 2019.

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.

<u>ENERGY STAR Labeled Buildings Program</u>
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.

Great Plains did not have any participation in the building certification program in 2019.

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 2019.

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 2019.

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 2019, CIP assessments amounted to $9,194, 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 2019. Great Plains has exceeded the 0.5 percent of total annual CIP expense limit of $2,497 by $706. The primary reason Great Plains' employees exceeded the allowable expense for employee travel is related to Department sponsored low income meetings in St. Cloud and Cost-Benefit and Fuel Switching meetings in Minneapolis.

	Employee Expenses
Vehicles	$1,785
Commercial Air	723
Personal Vehicle Use	0
Meals	131
Other Reimbursable Expenses	564
Total	$3,203

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 simultaneously with final rates in Great Plains' currently pending rate case in Docket No. G004/GR-19-511, in which it proposed an updated Conservation Cost Recovery Charge (CCRC). Great Plains has incorporated the pending CCRC and CCRA based on an assumption of a January 1, 2021 effective date.

Attachment E, 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 $0.0123 per dk for all non-CIP Exempt customers, an increase of $0.0460 from the current CCRA (established in Docket No. G-004/M-19-287). Great Plains has also incorporated an updated CCRC (proposed in Docket No. G004/GR-19-511) of $0.0818 per dk, which is an increase of $0.0262 per dk. The proposed CCRC and CCRA result in a total of $0.0941 per dk, an increase of $0.0722 from the current CCRC and CCRA. For a typical residential customer using 75 dk per year, this reflects a decrease of $5.42 annually or $0.45 per month. Great Plains requests that the proposed CCRA and CCRC be implemented simultaneously at time rates from its pending rate case are implemented.

The CIP True-up on page 2 includes the balance in the CIP account at December 31, 2018, 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 2019 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 on pages 3 and 4.

Attachment A is the Conservation Improvement Program Adjustment Clause tariff sheets (Sheet No. 5-110 & 5-111) with the proposed rate per dk.

2019 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 F shows the calculation of the DSM Incentive for 2019 based on the results of the 2019 CIP program. As shown in Attachment B, Great Plains total energy savings in 2019 were 13,175 dk, which results in an achievement level of 0.24%. 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 39,064 dk. Therefore, Great Plains' 2019 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

Section No. 5
14th Revised Sheet No. 5-110
Canceling 13th Revised Sheet No. 5-110

CONSERVATION IMPROVEMENT PROGRAM ADJUSTMENT CLAUSE

Applicability:

This Conservation Improvement Program Adjustment is applicable to the Company's Minnesota retail gas sales and transportation rate schedules. Exemptions are as follows:

"Large Energy Facility", as defined in Minn. Stat. 216B.2421 customers shall receive a monthly exemption from conservation improvement program charges pursuant to Minn. Stat. 216B.16, subd. 6b Energy Conservation Improvement. Upon exemption from conservation program charges, the "Large Energy Facility" customers can no longer participate in any utility's Energy Conservation Improvement Program.

"Large Customer Facility" customers that have been exempted from the Company's Conservation Improvement Program charges pursuant to Minn. Stat. 216B.241, Subd. 1a (b) shall receive a monthly exemption from conservation improvement program charges pursuant to Minn. Stat. 216B.16, subd. 6b Energy Conservation Improvement. Such monthly exemption will be effective beginning January 1 of the year following the grant of exemption. Upon exemption from conservation program charges, the "Large Customer Facility" customers can no longer participate in the Company's Energy Conservation Improvement Program.

"Commercial Gas Customers" that have been exempted from the Company's Conservation Improvement Program charges pursuant to Minn. Stat. 216B.241, Subd.1a (c) shall receive a monthly exemption from conservation improvement program charges pursuant to Minn. Stat 216B.16, subd. 6b Energy Conservation Improvement. Such monthly exemption will be effective beginning January 1 of the year following the grant of exemption. Upon exemption from conservation program charges, the "Commercial Gas Customers" can no longer participate in the Company's Energy Conservation Improvement Program. The Company has fewer than 600,000 natural gas customers in Minnesota, thus making the Company subject to this Minnesota Statute.

Adjustment:

There shall be included on each non-exempt customer's monthly bill, as part of the Resource Adjustment, a Conservation Cost Recovery Adjustment (CCRA) Factor which shall be the applicable CCRA Factor multiplied by the customer's monthly billing dk for gas service before any applicable adjustments, city surcharge or sales tax. In addition to the CCRA Factor, a Base Charge of $0.0818 per dk, also known as the Conservation Cost Recovery Charge (CCRC), is billed as part

CONSERVATION IMPROVEMENT PROGRAM ADJUSTMENT CLAUSE

of the distribution delivery 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	($0.0597)

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.

Tariffs Reflecting Proposed Changes

CONSERVATION IMPROVEMENT PROGRAM ADJUSTMENT CLAUSE

Applicability:

This Conservation Improvement Program Adjustment is applicable to the Company's Minnesota retail gas sales and transportation rate schedules. Exemptions are as follows:

"Large Energy Facility", as defined in Minn. Stat. 216B.2421 customers shall receive a monthly exemption from conservation improvement program charges pursuant to Minn. Stat. 216B.16, subd. 6b Energy Conservation Improvement. Upon exemption from conservation program charges, the "Large Energy Facility" customers can no longer participate in any utility's Energy Conservation Improvement Program.

"Large Customer Facility" customers that have been exempted from the Company's Conservation Improvement Program charges pursuant to Minn. Stat. 216B.241, Subd. 1a (b) shall receive a monthly exemption from conservation improvement program charges pursuant to Minn. Stat. 216B.16, subd. 6b Energy Conservation Improvement. Such monthly exemption will be effective beginning January 1 of the year following the grant of exemption. Upon exemption from conservation program charges, the "Large Customer Facility" customers can no longer participate in the Company's Energy Conservation Improvement Program.

"Commercial Gas Customers" that have been exempted from the Company's Conservation Improvement Program charges pursuant to Minn. Stat. 216B.241, Subd.1a (c) shall receive a monthly exemption from conservation improvement program charges pursuant to Minn. Stat 216B.16, subd. 6b Energy Conservation Improvement. Such monthly exemption will be effective beginning January 1 of the year following the grant of exemption. Upon exemption from conservation program charges, the "Commercial Gas Customers" can no longer participate in the Company's Energy Conservation Improvement Program. The Company has fewer than 600,000 natural gas customers in Minnesota, thus making the Company subject to this Minnesota Statute.

Adjustment:

There shall be included on each non-exempt customer's monthly bill, as part of the Resource Adjustment, a Conservation Cost Recovery Adjustment (CCRA) Factor which shall be the applicable CCRA Factor multiplied by the customer's monthly billing dk for gas service before any applicable adjustments, city surcharge or sales tax. In addition to the CCRA Factor, a Base Charge of $0.0~~556~~818 per dk, also known as the Conservation Cost Recovery Charge (CCRC), is billed as part

CONSERVATION IMPROVEMENT PROGRAM ADJUSTMENT CLAUSE

of the distribution delivery charge authorized in Docket No. G004/GR-~~15-879~~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
~~$0.0556~~$0.0818	~~($0.0337)~~($0.0597)

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.

GREAT PLAINS NATURAL GAS CO.
SUMMARY OF 2019 CIP
AUTHORIZED VS. ACTUAL EXPENDITURES, PARTICIPANTS AND DK SAVINGS

	Expenditures			% of	Participants			% of	Dk Savings			% of
	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized
Residential and Small Commercial												
Space Heating Equipment	$145,018	$241,272	$96,254	166.4%	505	761	256	150.7%	6,063	8,862	2,799	146.2%
Water Heating Equipment	14,196	14,433	237	101.7%	519	311	(208)	59.9%	1,075	746	(329)	69.4%
Attic Insulation	409	209	(200)	51.1%	2	1	(1)	50.0%	13	4	(9)	30.8%
Pilotless Fireplace	511	209	(302)	40.9%	5	2	(3)	40.0%	22	9	(13)	40.9%
Residential Energy Assessment	22,116	8,042	(14,074)	36.4%	65	12	(53)	18.5%	0	0	0	0.0%
Total Residential	$182,250	$264,165	$81,915	144.9%	1,096	1,087	(9)	99.2%	7,173	9,621	2,448	134.1%
Low Income												
Weatherization	$97,279	$63,829	($33,450)	65.6%	60	25	(35)	41.7%	1,050	403	(647)	38.4%
Furnace Replacement	71,315	52,472	(18,843)	73.6%	17	13	(4)	76.5%	323	620	297	192.0%
Furnace/Boiler Tune-up	4,257	301	(3,956)	7.1%	20	1	(19)	5.0%	74	4	(70)	5.4%
Hot Water Heater Temp Set-Back	0	0	0	0.0%	15	0	(15)	0.0%	14	0	(14)	0.0%
Total Low-Income	$172,851	$116,602	($56,249)	67.5%	112	39	(73)	34.8%	1,461	1,027	(434)	70.3%
Commercial & Industrial												
Space Heating Equipment	$48,132	$107,312	$59,180	223.0%	66	48	(18)	72.7%	2,949	2,451	(498)	83.1%
Water Heating Equipment	2,807	839	(1,968)	29.9%	7	1	(6)	14.3%	161	0	(161)	0.0%
Commercial Boiler Equipment	28,358	1,198	(27,160)	4.2%	41	2	(39)	4.9%	1,306	76	(1,230)	5.8%
Foodservice Equipment	2,552	0	(2,552)	0.0%	3	0	(3)	0.0%	257	0	(257)	0.0%
Custom	421,087	0	(421,087)	0.0%	11	0	(11)	0.0%	44,000	0	(44,000)	0.0%
Building Certification Program	5,103	0	(5,103)	0.0%	1	0	(1)	0.0%	0	0	0	0.0%
Commercial Energy Assessment	6,062	0	(6,062)	0.0%	5	0	(5)	0.0%	0	0	0	0.0%
Industrial Energy Assessment	7,656	0	(7,656)	0.0%	2	0	(2)	0.0%	0	0	0	0.0%
Total Commercial and Industrial	$521,757	$109,349	($412,408)	21.0%	136	51	(85)	37.5%	48,673	2,527	(46,146)	5.2%
CIP Assessments	26,000	9,194	(16,806)	35.4%								
Total CIP Program	$902,858	$499,310	($403,548)	55.3%	1,344	1,177	(167)	87.6%	57,307	13,175	(44,132)	23.0%

1/ 2017-2019 Triennial Plan for Natural Gas CIP, Docket No. G004/CIP-16-121. Approved by the MN DOC on November 3, 2016.

GREAT PLAINS NATURAL GAS CO.
SUMMARY OF 2019 CIP
LOW INCOME AND RENTER PARTICIPANTS

	Expenditures			% of	Participants			% of	Dk Savings			% of
	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized
Low Income Participants												
Space Heating Equipment 2/	$3,770	$29,676	$25,906	787.2%	13	94	81	723.1%	156	682	526	437.2%
Water Heating Equipment 3/	1,008	4,056	3,048	402.4%	37	31	(6)	83.8%	77	216	139	280.5%
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	1,703	0	(1,703)	0.0%	5	0	(5)	0.0%	0	0	0	0.0%
Total Low Income Participants	$6,481	$33,732	$27,251	520.5%	55	125	70	227.3%	233	898	665	385.4%
Total Low Income Programs	$172,851	$116,602	($56,249)	67.5%	112	39	(73)	34.8%	1,461	1,027	(434)	70.3%
Grand Total Low Income	$179,332	$150,334	($28,998)	83.8%	167	164	(3)	98.2%	1,694	1,925	231	113.6%
Renter Participants												
Space Heating Equipment 2/	$17,257	$30,883	$13,626	179.0%	60	93	33	155.0%	720	679	(41)	94.3%
Water Heating Equipment 3/	1,178	4,344	3,166	368.8%	43	45	2	104.7%	89	270	181	303.4%
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	332	0	(332)	0.0%	1	0	(1)	0.0%	0	0	0	0.0%
Total Renters	$18,767	$35,227	$16,460	187.7%	104	138	34	132.7%	809	949	140	117.3%

1/ 2017-2019 Triennial Plan for Natural Gas CIP, Docket No. G004/CIP-16-121. Approved by the MN DOC on November 3, 2016.
2/ Includes rental property from the Furnace, Boiler, Furnace Tune-up and Programmable Thermostat programs.
3/ Includes rental property from the Water Heating Equipment and Low Flow Showerhead programs.

GREAT PLAINS NATURAL GAS CO.
SUMMARY OF 2019 CIP
PROGRAM RESULTS

Program	Expenditures			% of	Participants			% of	Dk Savings			% of
	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized
Residential and Small Commercial												
Space Heating Equipment												
Programmable Thermostats Tier 1	$510	$1,360	$850	266.7%	25	65	40	260.0%	63	163	100	258.7%
Programmable Thermostats Tier 2	$2,041	6,348	4,307	311.0%	30	91	61	303.3%	111	337	226	303.6%
Programmable Thermostats Tier 3	$2,552	5,023	2,471	196.8%	25	48	23	192.0%	153	293	140	191.5%
Furnace Tier 1 - 94-96% AFUE - New	1,633	4,185	2,552	256.3%	4	10	6	250.0%	76	64	(12)	84.2%
Furnace Tier 1 - 94-96% AFUE - Repl.	61,247	43,953	(17,294)	71.8%	150	101	(49)	67.3%	2,850	1,821	(1,029)	63.9%
Furnace Tier 2 - 96%+ AFUE - New	2,178	20,092	17,914	922.5%	4	36	32	900.0%	81	198	117	244.4%
Furnace Tier 2 - 96%+ AFUE - Repl.	54,441	131,714	77,273	241.9%	100	236	136	236.0%	2,030	4,840	2,810	238.4%
Furnace and Boiler Tune-up	10,208	10,040	(168)	98.4%	150	145	(5)	96.7%	345	365	20	105.8%
Boiler Tier 1 - 84-90.9% AFUE	2,041	2,511	470	123.0%	5	6	1	120.0%	38	41	3	107.9%
Boiler Tier 2 - 91%+ AFUE	8,167	16,046	7,879	196.5%	12	23	11	191.7%	316	740	424	234.2%
Total	$145,018	$241,272	$96,254	166.4%	505	761	256	150.7%	6,063	8,862	2,799	146.2%
Water Heat Equipment Upgrade												
Water Heating (.67 EF)	$1,633	$6,697	$5,064	410.1%	12	48	36	400.0%	26	265	239	1019.2%
Tankless Water Heating (.82 EF)	2,382	3,140	758	131.8%	7	9	2	128.6%	49	60	11	122.4%
Low Flow Showerheads	10,181	4,596	(5,585)	45.1%	500	254	(246)	50.8%	1,000	421	(579)	42.1%
Total	$14,196	$14,433	$237	101.7%	519	311	(208)	59.9%	1,075	746	(329)	69.4%
Attic Insulation	$409	$209	($200)	51.1%	2	1	(1)	50.0%	13	4	(9)	30.8%
Pilotless Fireplace	$511	$209	($302)	40.9%	5	2	(3)	40.0%	22	9	(13)	40.9%
Residential Energy Assessment	$22,116	$8,042	($14,074)	36.4%	65	12	(53)	18.5%	0	0	0	0.0%
Total Residential Portfolio	$182,250	$264,165	$81,915	144.9%	1,096	1,087	(9)	99.2%	7,173	9,621	2,448	134.1%
Low Income												
Weatherization	$97,279	$63,829	($33,450)	65.6%	60	25	(35)	41.7%	1,050	403	(647)	38.4%
Furnace Replacement	71,315	52,472	(18,843)	73.6%	17	13	(4)	76.5%	323	620	297	192.0%
Furnace/Boiler Tune-up	4,257	301	(3,956)	7.1%	20	1	(19)	5.0%	74	4	(70)	5.4%
Hot Water Heater Temp Set-Back	0	0	0	0.0%	15	0	(15)	0.0%	14	0	(14)	0.0%
Total Low Income Portfolio	$172,851	$116,602	($56,249)	67.5%	112	39	(73)	34.8%	1,461	1,027	(434)	70.3%

GREAT PLAINS NATURAL GAS CO.
SUMMARY OF 2019 CIP
PROGRAM RESULTS

Program	Expenditures			% of	Participants			% of	Dk Savings			% of
	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized
Commercial and Industrial												
Space Heating Equipment												
Furnace Tier 1 - 94-96% AFUE - Repl.	$9,570	$19,769	$10,199	206.6%	25	22	(3)	88.0%	880	556	(324)	63.2%
Furnace Tier 2 - 96%+ AFUE - New	1,021	1,198	177	117.3%	2	1	(1)	50.0%	75	35	(40)	46.7%
Furnace Tier 2 - 96%+ AFUE - Repl.	7,656	15,576	7,920	203.4%	15	13	(2)	86.7%	564	355	(209)	62.9%
Commercial Hot Water Boiler												
Tier 1 (85%+ AFUE)	1,940	0	(1,940)	0.0%	2	0	(2)	0.0%	79	0	(79)	0.0%
Tier 2 (88%+ AFUE)	20,927	70,769	49,842	338.2%	10	12	2	120.0%	988	1,505	517	152.3%
Commercial LP & HP Steam Boilers												
Tier 1 (<300,000 BTUH)	1,595	0	($1,595)	0.0%	1	0	(1)	0.0%	40	0	(40)	0.0%
Tier 2 (≥300,000 BTUH)	1,914	0	($1,914)	0.0%	1	0	(1)	0.0%	83	0	(83)	0.0%
Infrared Heater	1,595	0	($1,595)	0.0%	5	0	(5)	0.0%	141	0	(141)	0.0%
Condensing Unit Heater	1,914	0	($1,914)	0.0%	5	0	(5)	0.0%	99	0	(99)	0.0%
Total Space Heating	$48,132	$107,312	$59,180	223.0%	66	48	(18)	72.7%	2,949	2,451	(498)	83.1%
Water Heating Equipment												
Water Heater .64 EF+ (≥40 Gallons)	$255	$0	($255)	0.0%	2	0	(2)	0.0%	40	0	(40)	0.0%
Water Heater Storage 88% cond	2,552	839	(1,713)	32.9%	5	1	(4)	20.0%	121	0	(121)	0.0%
Total Water Heating	$2,807	$839	($1,968)	29.9%	7	1	(6)	14.3%	161	0	(161)	0.0%
Commercial Boiler Equipment												
O2 Control	$0	$0	$0	0.0%	0	0	0	0.0%	0	0	0	0.0%
Modulating Burners												
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)	3,189	0	(3,189)	0.0%	1	0	(1)	0.0%	293	0	(293)	0.0%
Stack Dampers	0	0	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
Turbulators	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	127	0	(127)	0.0%	1	0	(1)	0.0%	31	0	(31)	0.0%
Commercial Boiler Tune-Up												
Tier 1 (<2,500 kBTUH)	1,021	1,198	177	117.3%	4	2	(2)	50.0%	58	76	18	131.0%
Tier 2 (≥2,500 kBTUH)	1,914	0	(1,914)	0.0%	5	0	(5)	0.0%	507	0	(507)	0.0%
Commercial Steam Traps	22,107	0	(22,107)	0.0%	30	0	(30)	0.0%	417	0	(417)	0.0%
Total Commercial Boiler	$28,358	$1,198	($27,160)	4.2%	41	2	(39)	4.9%	1,306	76	(1,230)	5.8%

GREAT PLAINS NATURAL GAS CO.
SUMMARY OF 2019 CIP
PROGRAM RESULTS

Program	Expenditures			% of	Participants			% of	Dk Savings			% of
	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized	Authorized 1/	Actual	Difference	Authorized
Food Service Equipment												
Tier 1 ($500 Incentive)	$1,276	$0	($1,276)	0.0%	2	0	(2)	0.0%	174	0	(174)	0.0%
Tier 2 ($1,000 Incentive)	1,276	0	(1,276)	0.0%	1	0	(1)	0.0%	83	0	(83)	0.0%
Total	$2,552	$0	($2,552)	0.0%	3	0	(3)	0.0%	257	0	(257)	0.0%
Custom Projects	$421,087	$0	($421,087)	0.0%	11	0	(11)	0.0%	44,000	0	(44,000)	0.0%
Building Certification	5,103	0	(5,103)	0.0%	1	0	(1)	0.0%	0	0	0	0.0%
Comm. Energy Assessment	6,062	0	(6,062)	0.0%	5	0	(5)	0.0%	0	0	0	0.0%
Industrial Energy Assessment	7,656	0	(7,656)	0.0%	2	0	(2)	0.0%	0	0	0	0.0%
Total Commercial and Industrial Portfolio	$521,757	$109,349	($412,408)	21.0%	136	51	(85)	37.5%	48,673	2,527	(46,146)	5.2%
Total	$876,858	$490,116	($386,742)	55.9%	1,344	1,177	(167)	87.6%	57,307	13,175	(44,132)	23.0%
Direct Assessment Charges	$26,000	$9,194	($16,806)	35.4%								
Grand Total All Portfolios	$902,858	$499,310	($403,548)	55.3%								

1/ 2017-2019 Triennial Plan for Natural Gas CIP, Docket No. G004/CIP-16-121. Approved by the MN DOC on November 3, 2016.

GREAT PLAINS NATURAL GAS CO.
COST PER DK SAVED
2019 ACTUAL TO AUTHORIZED

	Actual Participants	Cost per Dk Saved Authorized 1/	Actual	Difference	% of Authorized
Residential and Small Commercial					
Space Heating Equipment					
Programmable Thermostats Tier 1	65	$8.10	$8.34	$0.24	102.96%
Programmable Thermostats Tier 2	91	18.39	18.84	0.45	102.45%
Programmable Thermostats Tier 3	48	16.68	17.14	0.46	102.76%
Furnace Tier 1 - 94-96% AFUE - New	10	21.49	65.39	43.90	304.28%
Furnace Tier 1 - 94-96% AFUE - Repl.	101	21.49	24.14	2.65	112.33%
Furnace Tier 2 - 96%+ AFUE - New	36	26.89	101.47	74.58	377.35%
Furnace Tier 2 - 96%+ AFUE - Repl.	236	26.82	27.21	0.39	101.45%
Furnace and Boiler Tune-up	145	29.59	27.51	(2.08)	92.97%
Boiler Tier 1 - 84-90.9% AFUE	6	53.71	61.24	7.53	114.02%
Boiler Tier 2 - 91%+ AFUE	23	25.84	21.68	(4.16)	83.90%
Total Space Heating	761	$23.92	$27.23	$3.31	113.84%
Water Heating Equipment					
Water Heating (.67 EF)	48	$62.81	$25.27	($37.54)	40.23%
Tankless Water Heating (.82 EF)	9	48.61	52.33	3.72	107.65%
Low Flow Showerheads	254	10.18	10.92	0.74	107.27%
Total Water Heating	311	$13.21	$19.35	$6.14	146.48%
Attic Insulation	1	$31.46	$52.25	$20.79	166.08%
Pilotless Fireplace	2	$23.23	$23.22	($0.01)	99.96%
Residential Energy Assessment	12	$0.00	$0.00	$0.00	0.00%
Total Residential Portfolio	1,087	$25.41	$27.46	$2.05	108.07%
Low Income					
Weatherization	25	$92.65	$158.38	$65.73	170.94%
Furnace Replacement	13	220.79	84.63	(136.16)	38.33%
Furnace/Boiler Tune-up	1	57.53	75.25	17.72	130.80%
Hot Water Heater Temp Set-Back	0	0.00	0.00	0.00	0.00%
Total Low Income Portfolio	39	$118.31	$113.54	($4.77)	95.97%
Commercial and Industrial					
Space Heating Equipment					
Furnace Tier 1 - 94-96% AFUE - Repl.	22	$10.88	$35.56	$24.68	326.84%
Furnace Tier 2 - 96%+ AFUE - New	1	13.61	34.23	20.62	251.51%
Furnace Tier 2 - 96%+ AFUE - Repl.	13	13.57	43.88	30.31	323.36%
Commercial Hot Water Boiler					
Tier 1 (85%+ AFUE)	0	24.56	0.00	(24.56)	0.00%
Tier 2 (88%+ AFUE)	12	21.18	47.02	25.84	222.00%
Commercial LP & HP Steam Boilers					
Tier 1 (<300,000 BTUH)	0	39.88	0.00	(39.88)	0.00%
Tier 2 (≥300,000 BTUH)	0	23.06	0.00	(23.06)	0.00%
Infrared Heater	0	11.31	0.00	(11.31)	0.00%
Condensing Unit Heater	0	19.33	0.00	(19.33)	0.00%
Total Space Heating	48	$16.32	$43.78	$27.46	268.26%

GREAT PLAINS NATURAL GAS CO.
COST PER DK SAVED
2019 ACTUAL TO AUTHORIZED

	Actual Participants	Cost per Dk Saved			% of Authorized
		Authorized 1/	Actual	Difference	
Water Heating Equipment					
Water Heater .64 EF+ (≥40 Gallons)	0	$6.38	$0.00	($6.38)	0.00%
Water Heater Storage 88% cond	1	21.09	0.00	(21.09)	0.00%
Total Water Heating	1	$17.43	$0.00	($17.43)	0.00%
Commercial Boiler Equipment					
O2 Control	0	$0.00	$0.00	$0.00	0.00%
Modulating Burners					
Tier 1 (<2,500 kBTUH)	0	0.00	0.00	0.00	0.00%
Tier 2 (>2,500 kBTUH)	0	10.88	0.00	(10.88)	0.00%
Stack Dampers	0	0.00	0.00	0.00	0.00%
Turbulators	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	4.10	0.00	(4.10)	0.00%
Commercial Boiler Tune-Up					
Tier 1 (<2,500 kBTUH)	2	17.60	15.76	(1.84)	89.55%
Tier 2 (≥2,500 kBTUH)	0	3.78	0.00	(3.78)	0.00%
Commercial Steam Traps	0	53.01	0.00	(53.01)	0.00%
Total Commercial Boiler	2	$21.71	$15.76	($5.95)	72.59%
Foodservice Equipment					
Tier 1 ($500 Incentive)	0	$7.33	$0.00	($7.33)	0.00%
Tier 2 ($1,000 Incentive)	0	15.37	0.00	(15.37)	0.00%
Total Foodservice	0	$9.93	$0.00	($9.93)	0.00%
Custom Program	0	$9.57	$0.00	($9.57)	0.00%
Building Certification Program	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 Portfolio	51	$10.72	$43.27	$32.55	403.64%
Grand Total All Portfolios 2/	1,177	$15.75	$37.90	$22.15	240.63%

1/ 2017-2019 Triennial Plan for Natural Gas CIP, Docket No. G004/CIP-16-121.
Approved by the MN DOC on November 3, 2016.

2/ Includes direct assessment charges.

GREAT PLAINS NATURAL GAS CO.
SUMMARY OF LOW INCOME PROGRAMS
2019

Agency/ Customer Number	Weatherization Incentive Expense	Weatherization Dk Savings	Weatherization $/Dk	Furnace/Boiler Replacement Incentive Expense	Furnace/Boiler Replacement Dk Savings	Furnace/Boiler Replacement $/Dk	Furnace/Boiler Tune-up Incentive Expense	Furnace/Boiler Tune-up Dk Savings	Furnace/Boiler Tune-up $/Dk	Total Low Income Incentive Expense	Total Low Income Dk Savings	Total Low Income $/Dk
Mahube												
1	$1,799	29.1	$61.82	$2,100	26.4	$79.55				$3,899	55.5	$70.25
2	1,800	20.4	88.24							1,800	20.4	88.24
3	1,739	13.4	129.78	2,497	9.0	277.44				4,236	22.4	189.11
4	1,468	16.3	90.06	2,499	12.3	203.17				3,967	28.6	138.71
5	687	6.6	104.09	2,499	16.1	155.22				3,186	22.7	140.35
6	1,799	19.2	93.70							1,799	19.2	93.70
7	1,797	10.8	166.39							1,797	10.8	166.39
8				3,850	75.2	51.20				3,850	75.2	51.20
	$11,089	115.8	$95.76	$13,445	139.0	$96.73	$0	0.0	$0.00	$24,534	254.8	$96.29
Prairie V Community Action Council, Inc.												
9	$2,210	16.8	$131.55	$2,750	11.2	$245.54				$4,960	28.0	$177.14
10	2,211	21.2	104.29	2,750	10.5	261.90				4,961	31.7	156.50
11	2,207	15.0	147.13	2,750	6.3	436.51				4,957	21.3	232.72
12	1,793	8.1	221.36	2,750	29.1	94.50				4,543	37.2	122.12
13	2,218	11.3	196.28	2,750	4.5	611.11				4,968	15.8	314.43
14	2,229	15.8	141.08	2,750	2.8	982.14				4,979	18.6	267.69
15	2,230	12.9	172.87							2,230	12.9	172.87
16	2,194	4.1								2,194	4.1	535.12
17	2,229	9.8								2,229	9.8	227.45
18	2,149	21.8	98.58							2,149	21.8	98.58
	$21,670	136.8	$158.41	$16,500	64.4	$256.21	$0	0.0	$0.00	$38,170	201.2	$189.71
West Central MN Communities Action, Inc.												
27	$2,384	15.4	$154.81							$2,384	15.4	$154.81
28	1,121	6.5	172.46							1,121	6.5	172.46
29	1,076	10.5	102.48							1,076	10.5	102.48
	$4,581	32.4	$141.39	$0	0.0	$0.00	$0	0.0	$0.00	$4,581	32.4	$141.39

GREAT PLAINS NATURAL GAS CO.
SUMMARY OF LOW INCOME PROGRAMS
2019

Agency/ Customer Number	Weatherization Incentive Expense	Weatherization Dk Savings	Weatherization $/Dk	Furnace/Boiler Replacement Incentive Expense	Furnace/Boiler Replacement Dk Savings	Furnace/Boiler Replacement $/Dk	Furnace/Boiler Tune-up Incentive Expense	Furnace/Boiler Tune-up Dk Savings	Furnace/Boiler Tune-up $/Dk	Total Low Income Incentive Expense	Total Low Income Dk Savings	Total Low Income $/Dk
United Community Action												
30	$1,972	42.4	$46.51	$5,478	402.2	$13.62				$7,450	444.6	$16.76
31	1,955	15.8	123.73				$219	4.1	$53.41	2,174	19.9	109.25
32	1,980	16.4	120.73							1,980	16.4	120.73
33	1,211	10.8	112.13							1,211	10.8	112.13
34	1,977	32.3	61.21	2,750	14.3	192.31				4,727	46.6	101.44
	$9,095	117.7	$77.27	$8,228	416.5	$19.76	$219	4.1	$53.41	$17,542	538.3	$32.59
Total Low Income	$46,435	402.7	$115.31	$38,173	619.9	$61.58	$219	4.1	$53.41	$84,827	1,026.7	$82.62
Total Participants	25			13			1				39	
Average Dk/Participant Saved											26.3	

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	
1) Retail Rate ($/MCF) =	$5.7249
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.00
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	0.23%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.02322
Escalation Rate =	2.16%
11) Participant Discount Rate =	2.82%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$178,764
16 b) Incentive Costs =	$311,352
16 c) Total Utility Project Costs =	$490,116
17) Direct Participant Costs ($/Part.) =	$732
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	14
21) Avg. MCF/Part. Saved =	11.2
22) Avg Non-Gas Fuel Units/Part. Saved =	270 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	1,177
24) Total Annual MCF Saved =	13,175
25) Incentive/Participant =	$264.53

Cost Summary	**2019**
Utility Cost per Participant =	$416.41
Cost per Participant per MCF =	$102.54
Lifetime Energy Reduction (MCF)	184,450
Societal Cost per MCF	$5.64

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($665,911)	0.52
Utility Cost Test	$227,105	1.46
Societal Test	$308,920	1.30
Participant Test	$730,402	1.85

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$7.2476
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.00
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.02322
Escalation Rate =	2.16%
11) Participant Discount Rate =	2.55%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$74,147
16 b) Incentive Costs =	$190,018
16 c) Total Utility Project Costs =	$264,165
17) Direct Participant Costs ($/Part.) =	$630
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	13
21) Avg. MCF/Part. Saved =	8.9
22) Avg Non-Gas Fuel Units/Part. Saved =	260 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	1,087
24) Total Annual MCF Saved =	9,621
25) Incentive/Participant =	$174.81

Cost Summary	**2019**
Utility Cost per Participant =	$243.02
Cost per Participant per MCF =	$98.09
Lifetime Energy Reduction (MCF)	125,073
Societal Cost per MCF	$6.07

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($447,102)	0.57
Utility Cost Test	$335,667	2.27
Societal Test	$331,191	1.44
Participant Test	$616,026	1.90

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	
1) Retail Rate ($/MCF) =	$7.2476
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.0232
Escalation Rate =	2.16%
11) Participant Discount Rate =	2.55%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$68,351
16 b) Incentive Costs =	$172,921
16 c) Total Utility Project Costs =	$241,272
17) Direct Participant Costs ($/Part.) =	$837
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	14
21) Avg. MCF/Part. Saved =	11.6
22) Avg Non-Gas Fuel Units/Part. Saved =	372 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	761
24) Total Annual MCF Saved =	8,862
25) Incentive/Participant =	$227.23

Cost Summary	**2019**
Utility Cost per Participant =	$317.05
Cost per Participant per MCF =	$99.49
Lifetime Energy Reduction (MCF)	124,068
Societal Cost per MCF	$5.68

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($418,991)	0.58
Utility Cost Test	$341,452	2.42
Societal Test	$398,706	1.57
Participant Test	$645,865	2.01

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	
1) Retail Rate ($/MCF) =	$7.2476
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.0232
Escalation Rate =	2.16%
11) Participant Discount Rate =	2.55%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$3,400
16 b) Incentive Costs =	$11,033
16 c) Total Utility Project Costs =	$14,433
17) Direct Participant Costs ($/Part.) =	$136
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	11
21) Avg. MCF/Part. Saved =	2.4
22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	311
24) Total Annual MCF Saved =	746
25) Incentive/Participant =	$35.48

Cost Summary	**2019**
Utility Cost per Participant =	$46.41
Cost per Participant per MCF =	$76.00
Lifetime Energy Reduction (MCF)	8,206
Societal Cost per MCF	$5.57

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($26,954)	0.60
Utility Cost Test	$26,621	2.84
Societal Test	$12,614	1.28
Participant Test	$40,573	1.96

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$7.2476
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.0232
Escalation Rate =	2.16%
11) Participant Discount Rate =	2.55%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$59
16 b) Incentive Costs =	$150
16 c) Total Utility Project Costs =	$209
17) Direct Participant Costs ($/Part.) =	$1,632
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	20
21) Avg. MCF/Part. Saved =	6.6
22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	1
24) Total Annual MCF Saved =	4
25) Incentive/Participant =	$150.00

Cost Summary	**2019**
Utility Cost per Participant =	$209.00
Cost per Participant per MCF =	$278.94
Lifetime Energy Reduction (MCF)	80
Societal Cost per MCF	$21.14

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($310)	0.52
Utility Cost Test	$124	1.59
Societal Test	($1,087)	0.36
Participant Test	($734)	0.55

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$7.2476
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.0232
Escalation Rate =	2.16%
11) Participant Discount Rate =	2.55%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$59
16 b) Incentive Costs =	$150
16 c) Total Utility Project Costs =	$209
17) Direct Participant Costs ($/Part.) =	$193
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	15
21) Avg. MCF/Part. Saved =	4.4
22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	2
24) Total Annual MCF Saved =	9
25) Incentive/Participant =	$75.00

Cost Summary	**2019**
Utility Cost per Participant =	$104.50
Cost per Participant per MCF =	$67.92
Lifetime Energy Reduction (MCF)	135
Societal Cost per MCF	$3.30

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($398)	0.61
Utility Cost Test	$412	2.97
Societal Test	$540	2.21
Participant Test	$980	3.54

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$7.2476
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.0232
Escalation Rate =	2.16%
11) Participant Discount Rate =	2.55%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$2,278
16 b) Incentive Costs =	$5,764
16 c) Total Utility Project Costs =	$8,042
17) Direct Participant Costs ($/Part.) =	$300
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	10
21) Avg. MCF/Part. Saved =	-
22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	12
24) Total Annual MCF Saved =	0
25) Incentive/Participant =	$480.33

Cost Summary	**2019**
Utility Cost per Participant =	$670.17
Cost per Participant per MCF =	#DIV/0!
Lifetime Energy Reduction (MCF)	0
Societal Cost per MCF	#DIV/0!

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($8,042)	0.00
Utility Cost Test	($8,042)	0.00
Societal Test	($5,878)	0.00
Participant Test	$2,164	1.60

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$7.2476
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.0232
Escalation Rate =	2.16%
11) Participant Discount Rate =	2.55%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$31,775
16 b) Incentive Costs =	$84,827
16 c) Total Utility Project Costs =	$116,602
17) Direct Participant Costs ($/Part.) =	$2,009
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	20
21) Avg. MCF/Part. Saved =	26.3
22) Avg Non-Gas Fuel Units/Part. Saved =	240 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	39
24) Total Annual MCF Saved =	1,027
25) Incentive/Participant =	$2,175.05

Cost Summary	**2019**
Utility Cost per Participant =	$2,989.79
Cost per Participant per MCF =	$190.07
Lifetime Energy Reduction (MCF)	20,540
Societal Cost per MCF	$5.36

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($142,658)	0.37
Utility Cost Test	($31,168)	0.73
Societal Test	$54,713	1.50
Participant Test	$198,451	3.53

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$7.2476
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.0232
Escalation Rate =	2.16%
11) Participant Discount Rate =	2.55%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$17,394
16 b) Incentive Costs =	$46,435
16 c) Total Utility Project Costs =	$63,829
17) Direct Participant Costs ($/Part.) =	$1,333
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	20
21) Avg. MCF/Part. Saved =	17.5
22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	25
24) Total Annual MCF Saved =	403
25) Incentive/Participant =	$1,857.40

Cost Summary	**2019**
Utility Cost per Participant =	$2,553.16
Cost per Participant per MCF =	$222.07
Lifetime Energy Reduction (MCF)	8,060
Societal Cost per MCF	$6.29

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($74,053)	0.31
Utility Cost Test	($30,304)	0.53
Societal Test	$10,158	1.20
Participant Test	$88,442	3.65

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$7.2476
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.0232
Escalation Rate =	2.16%
11) Participant Discount Rate =	2.55%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$14,299
16 b) Incentive Costs =	$38,173
16 c) Total Utility Project Costs =	$52,472
17) Direct Participant Costs ($/Part.) =	$3,449
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	20
21) Avg. MCF/Part. Saved =	19.0
22) Avg Non-Gas Fuel Units/Part. Saved =	720 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	13
24) Total Annual MCF Saved =	620
25) Incentive/Participant =	$2,936.38

Cost Summary	**2019**
Utility Cost per Participant =	$4,036.31
Cost per Participant per MCF =	$393.96
Lifetime Energy Reduction (MCF)	12,400
Societal Cost per MCF	$4.77

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($68,202)	0.43
Utility Cost Test	($896)	0.98
Societal Test	$44,222	1.75
Participant Test	$109,231	3.44

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$7.2476
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.0232
Escalation Rate =	2.16%
11) Participant Discount Rate =	2.55%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$82
16 b) Incentive Costs =	$219
16 c) Total Utility Project Costs =	$301
17) Direct Participant Costs ($/Part.) =	$175
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	2
21) Avg. MCF/Part. Saved =	3.7
22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	1
24) Total Annual MCF Saved =	4
25) Incentive/Participant =	$219.00

Cost Summary	**2019**
Utility Cost per Participant =	$301.00
Cost per Participant per MCF =	$128.65
Lifetime Energy Reduction (MCF)	8
Societal Cost per MCF	$32.13

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($316)	0.13
Utility Cost Test	($252)	0.16
Societal Test	($203)	0.21
Participant Test	$110	1.63

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$7.2476
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.0232
Escalation Rate =	2.16%
11) Participant Discount Rate =	2.55%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$0
16 b) Incentive Costs =	$0
16 c) Total Utility Project Costs =	$0
17) Direct Participant Costs ($/Part.) =	$0
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	2
21) Avg. MCF/Part. Saved =	0.9
22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	-
24) Total Annual MCF Saved =	0
25) Incentive/Participant =	#DIV/0!

Cost Summary	**2019**
Utility Cost per Participant =	#DIV/0!
Cost per Participant per MCF =	#DIV/0!
Lifetime Energy Reduction (MCF)	0
Societal Cost per MCF	#DIV/0!

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	$0	#DIV/0!
Utility Cost Test	$0	#DIV/0!
Societal Test	$0	#DIV/0!
Participant Test	$0	#DIV/0!

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	
1) Retail Rate ($/MCF) =	$5.4537
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.00
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	0.09%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.02322
Escalation Rate =	2.16%
11) Participant Discount Rate =	8.96%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$72,842
16 b) Incentive Costs =	$36,507
16 c) Total Utility Project Costs =	$109,349
17) Direct Participant Costs ($/Part.) =	$1,925
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	19
21) Avg. MCF/Part. Saved =	49.5
22) Avg Non-Gas Fuel Units/Part. Saved =	508 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	51
24) Total Annual MCF Saved =	2,527
25) Incentive/Participant =	$715.82

Cost Summary	**2019**
Utility Cost per Participant =	$2,144.10
Cost per Participant per MCF =	$82.20
Lifetime Energy Reduction (MCF)	48,013
Societal Cost per MCF	$3.56

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($147,112)	0.52
Utility Cost Test	$52,918	1.48
Societal Test	$145,200	1.85
Participant Test	$138,362	2.41

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$6.9424
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.02322
Escalation Rate =	2.16%
11) Participant Discount Rate =	8.96%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$71,485
16 b) Incentive Costs =	$35,827
16 c) Total Utility Project Costs =	$107,312
17) Direct Participant Costs ($/Part.) =	$1,991
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	20
21) Avg. MCF/Part. Saved =	51.1
22) Avg Non-Gas Fuel Units/Part. Saved =	540 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	48
24) Total Annual MCF Saved =	2,451
25) Incentive/Participant =	$746.40

Cost Summary	**2019**
Utility Cost per Participant =	$2,235.67
Cost per Participant per MCF =	$82.71
Lifetime Energy Reduction (MCF)	49,020
Societal Cost per MCF	$3.41

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($158,291)	0.56
Utility Cost Test	$96,581	1.90
Societal Test	$230,059	2.38
Participant Test	$195,131	3.04

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$6.9424
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.02322
Escalation Rate =	2.16%
11) Participant Discount Rate =	8.96%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$559
16 b) Incentive Costs =	$280
16 c) Total Utility Project Costs =	$839
17) Direct Participant Costs ($/Part.) =	$1,800
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	15
21) Avg. MCF/Part. Saved =	-
22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	1
24) Total Annual MCF Saved =	0
25) Incentive/Participant =	$280.00

Cost Summary	**2019**
Utility Cost per Participant =	$839.00
Cost per Participant per MCF =	#DIV/0!
Lifetime Energy Reduction (MCF)	0
Societal Cost per MCF	#DIV/0!

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($839)	0.00
Utility Cost Test	($839)	0.00
Societal Test	($2,359)	0.00
Participant Test	($1,520)	0.16

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$6.9424
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.02322
Escalation Rate =	2.16%
11) Participant Discount Rate =	8.96%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$798
16 b) Incentive Costs =	$400
16 c) Total Utility Project Costs =	$1,198
17) Direct Participant Costs ($/Part.) =	$415
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	2
21) Avg. MCF/Part. Saved =	38.0
22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	2
24) Total Annual MCF Saved =	76
25) Incentive/Participant =	$200.00

Cost Summary	**2019**
Utility Cost per Participant =	$599.00
Cost per Participant per MCF =	$26.68
Lifetime Energy Reduction (MCF)	152
Societal Cost per MCF	$10.71

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	($1,430)	0.39
Utility Cost Test	($270)	0.77
Societal Test	($610)	0.63
Participant Test	$730	1.88

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$6.9424
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	1.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.02322
Escalation Rate =	2.16%
11) Participant Discount Rate =	8.96%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$0
16 b) Incentive Costs =	$0
16 c) Total Utility Project Costs =	$0
17) Direct Participant Costs ($/Part.) =	#DIV/0!
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	#DIV/0!
21) Avg. MCF/Part. Saved =	#DIV/0!
22) Avg Non-Gas Fuel Units/Part. Saved =	#DIV/0!
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	-
24) Total Annual MCF Saved =	0
25) Incentive/Participant =	#DIV/0!

Cost Summary	**2019**
Utility Cost per Participant =	#DIV/0!
Cost per Participant per MCF =	#DIV/0!
Lifetime Energy Reduction (MCF)	#DIV/0!
Societal Cost per MCF	#DIV/0!

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	#DIV/0!	#DIV/0!
Utility Cost Test	#DIV/0!	#DIV/0!
Societal Test	#DIV/0!	#DIV/0!
Participant Test	#DIV/0!	#DIV/0!

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

Company: **Great Plains Natural Gas Co.**
Project: **Commercial and Industrial Custom Program**

Input Data	
1) Retail Rate ($/MCF) =	$5.3024
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	0.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.02322
Escalation Rate =	2.16%
11) Participant Discount Rate =	8.96%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$0
16 b) Incentive Costs =	$0
16 c) Total Utility Project Costs =	$0
17) Direct Participant Costs ($/Part.) =	$108,000
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	15
21) Avg. MCF/Part. Saved =	4,000.0
22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	-
24) Total Annual MCF Saved =	0
25) Incentive/Participant =	#DIV/0!

Cost Summary	**2019**
Utility Cost per Participant =	#DIV/0!
Cost per Participant per MCF =	#DIV/0!
Lifetime Energy Reduction (MCF)	0
Societal Cost per MCF	#DIV/0!

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	$0	#DIV/0!
Utility Cost Test	$0	#DIV/0!
Societal Test	$0	#DIV/0!
Participant Test	$0	#DIV/0!

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$5.3024
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	0.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.02322
Escalation Rate =	2.16%
11) Participant Discount Rate =	8.96%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$0
16 b) Incentive Costs =	$0
16 c) Total Utility Project Costs =	$0
17) Direct Participant Costs ($/Part.) =	$8,000
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	-
21) Avg. MCF/Part. Saved =	-
22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	-
24) Total Annual MCF Saved =	0
25) Incentive/Participant =	#DIV/0!

Cost Summary	**2019**
Utility Cost per Participant =	#DIV/0!
Cost per Participant per MCF =	#DIV/0!
Lifetime Energy Reduction (MCF)	0
Societal Cost per MCF	#DIV/0!

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	$0	#DIV/0!
Utility Cost Test	$0	#DIV/0!
Societal Test	$0	#DIV/0!
Participant Test	$0	#DIV/0!

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$5.3024
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	0.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.02322
Escalation Rate =	2.16%
11) Participant Discount Rate =	8.96%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$0
16 b) Incentive Costs =	$0
16 c) Total Utility Project Costs =	$0
17) Direct Participant Costs ($/Part.) =	$1,100
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	-
21) Avg. MCF/Part. Saved =	-
22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	-
24) Total Annual MCF Saved =	0
25) Incentive/Participant =	#DIV/0!

Cost Summary	**2019**
Utility Cost per Participant =	#DIV/0!
Cost per Participant per MCF =	#DIV/0!
Lifetime Energy Reduction (MCF)	0
Societal Cost per MCF	#DIV/0!

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	$0	#DIV/0!
Utility Cost Test	$0	#DIV/0!
Societal Test	$0	#DIV/0!
Participant Test	$0	#DIV/0!

Conservation Improvement Program (CIP) BENEFIT COST FOR GAS CIPS-- Cost-Effectiveness Analysis

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

Input Data	
1) Retail Rate ($/MCF) =	$5.3024
Escalation Rate =	4.00%
2) Non-Gas Fuel Retail Rate ($/Fuel Unit) =	$0.000
Escalation Rate =	3.22%
Non-Gas Fuel Units (ie. kWh,Gallons, etc) =	kWh
3) Commodity Cost ($/MCF) =	$4.27
Escalation Rate =	4.00%
4) Demand Cost ($/Unit/Yr) =	$124.14
Escalation Rate =	4.00%
5) Peak Reduction Factor =	0.00%
6) Variable O&M ($/MCF) =	$0.0424
Escalation Rate =	4.00%
7) Non-Gas Fuel Cost ($/Fuel Unit) =	$0.02153
Escalation Rate =	3.22%
8) Non-Gas Fuel Loss Factor	5.28%
9) Gas Environmental Damage Factor =	$0.3800
Escalation Rate =	2.16%
10) Non Gas Fuel Enviro. Damage Factor ($/Unit) =	$0.02322
Escalation Rate =	2.16%
11) Participant Discount Rate =	8.96%
12) Utility Discount Rate =	8.96%
13) Societal Discount Rate =	2.55%
14) General Input Data Year =	2016
15a) Project Analysis Year 1 =	2019
15b) Project Analysis Year 2 =	
15c) Project Analysis Year 3 =	

	2019
16 Utility Project Costs	
16 a) Administrative & Operating Costs =	$0
16 b) Incentive Costs =	$0
16 c) Total Utility Project Costs =	$0
17) Direct Participant Costs ($/Part.) =	$3,400
18) Participant Non-Energy Costs (Annual $/Part.) =	$0
Escalation Rate =	2.16%
19) Participant Non-Energy Savings (Annual $/Part) =	$0
Escalation Rate =	2.16%
20) Project Life (Years) =	-
21) Avg. MCF/Part. Saved =	-
22) Avg Non-Gas Fuel Units/Part. Saved =	0 kWh
22a) Avg Additional Non-Gas Fuel Units/ Part. Used =	0 kWh
23) Number of Participants =	-
24) Total Annual MCF Saved =	0
25) Incentive/Participant =	#DIV/0!

Cost Summary	**2019**
Utility Cost per Participant =	#DIV/0!
Cost per Participant per MCF =	#DIV/0!
Lifetime Energy Reduction (MCF)	0
Societal Cost per MCF	#DIV/0!

Test Results	**Triennial NPV**	**Triennial B/C**
Ratepayer Impact Measure Test	$0	#DIV/0!
Utility Cost Test	$0	#DIV/0!
Societal Test	$0	#DIV/0!
Participant Test	$0	#DIV/0!

GREAT PLAINS NATURAL GAS CO.
CIP RATE TRUE-UP FILING
DOCKET NO. G004/M-20-____

	Projected Dk 1/	Volumetric Allocation	Total Under/(Over) Recovery	Proposed CCRA	Current CCRA 2/	Change
Residential	900,379	23.3912%	($53,781)	($0.0597)	($0.0337)	($0.0260)
Firm General	1,004,398	26.0936%	(59,994)	(0.0597)	(0.0337)	(0.0260)
Interruptible	483,866	12.5705%	(28,902)	(0.0597)	(0.0337)	(0.0260)
Transportation	1,460,570	37.9447%	(87,243)	(0.0597)	(0.0337)	(0.0260)
Total	3,849,213	100.0000%	($229,920)			

Rate change for the average residential customer using 75 Dk per year.

	Dk 3/	CCRC		CCRA		Total	Total CIP Cost
Current Rate	75	$0.0556	4/	($0.0337)	2/	$0.0219	$1.64
Proposed Rate	75	0.0818	5/	(0.0597)		0.0221	1.66
Change		$0.0262		($0.0260)		$0.0002	

The average residential customer will pay an annual CIP cost of $1.66 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 9 months running from January 2021 - August 2021.
2/ Authorized in Docket No. G004/M-19-287, effective August 1, 2019.
3/ Reflects average normalized 2019 residential dk per customer.
4/ Authorized in Docket No. G004/GR-15-879, effective August 1, 2019.
5/ Pending approval in Docket No. G004/GR-19-511.

GREAT PLAINS NATURAL GAS CO.
CCRA FILING AND DEMAND INCENTIVE
DOCKET NO. G004/M-20-____

CIP True-Up	Beginning Balance	Expenses	Carrying Charges	Billed Recovery	Net Activity	Ending Balance
2019 Activity	($830,804)	$499,310	($14,083)	$370,616	$114,611	($716,193)
2020 Activity						
January - March Actual	($716,193)	$86,578	($2,834)	$55,590	$28,154	
April - December 2020 Projected		311,891	(7,146)	90,686	214,059	
	($716,193)	$398,469	($9,980)	$146,276	$242,213	($473,980)
2021 Activity						
Jan. 2021 - Aug. 2021 Projected	($473,980)	$566,002	($7,077)	$314,865 1/	$244,060	($229,920)
Projected Balance September 1, 2021	($716,193)	$964,471	($17,057)	$461,141	$486,273	($229,920)
2019 DSM Incentive to be recorded in September 2020 2/						0
Total projected Under/(Over) Recovery to be recovered through CCRA from January 2021 - August 2021						($229,920)

1/ Projected CCRC recovery from January 2021 - August 2021.
2/ The actual Achievement Level of 0.24% was less than the Earning Threshold of 0.70%.

GREAT PLAINS NATURAL GAS CO.
CIP PROGRAM
2019

Month	Beginning Balance	Carrying Charge 1/	Current Month Charges	Billed Recovery CCRC 2/	Billed Recovery CCRA 2/	Billed Recovery Total	Ending Balance
December 2018							($830,804)
January 2019	($830,804)	($1,115)	$30,053	$51,085	$11,948	$63,033	(864,899)
February	(864,899)	(1,160)	25,070	56,441	13,196	69,637	(910,626)
March	(910,626)	(1,222)	28,336	51,950	12,148	64,098	(947,610)
April	(947,610)	(1,271)	52,304	38,721	9,054	47,775	(944,352)
May	(944,352)	(1,267)	47,466	26,061	6,096	32,157	(930,310)
June	(930,310)	(1,248)	25,505	14,977	3,497	18,474	(924,527)
July	(924,527)	(1,240)	27,233	13,123	3,064	16,187	(914,721)
August	(914,721)	(1,227)	65,209	10,563	985	11,548	(862,287)
September	(862,287)	(1,157)	37,022	13,064	(7,884)	5,180	(831,602)
October	(831,602)	(1,116)	46,025	20,187	(12,228)	7,959	(794,652)
November	(794,652)	(1,066)	69,950	36,765	(22,288)	14,477	(740,245)
December	(740,245)	(994)	45,137	50,996	(30,905)	20,091	(716,193)
Total 2019		($14,083)	$499,310	$383,933	($13,317)	$370,616	

1/ Reflects the cost of short-term debt of 1.610% authorized in Docket No. G004/GR-15-879.

2/ Rates effective with service rendered on and after:

	September 1, 2018 - August 31, 2019 Docket No. G004/M-18-118.	September 1, 2019 - December 31, 2020 Docket No. G004/M-19-287.
CCRC	$0.0556	$0.0556
CCRA	$0.0130	($0.0337)

GREAT PLAINS NATURAL GAS CO.
CIP PROGRAM
2020

Month	Beginning Balance	Carrying Charge 1/	Current Month Charges. 4/		Billed Recovery CCRC 2/	Billed Recovery CCRA 2/	Billed Recovery Total	Ending Balance
December 2019								($716,193)
January 2020	($716,193)	($961)	$39,304		$53,476	($32,416)	$21,060	(698,910)
February	(698,910)	(938)	19,941		44,280	(26,837)	17,443	(697,350)
March	(697,350)	(935)	27,333		43,381	(26,294)	17,087	(688,039)
April - est.	(688,039)	(922)	39,228		30,402	(18,427)	11,975	(661,708)
May - est.	(661,708)	(887)	35,600		18,153	(11,003)	7,150	(634,145)
June - est.	(634,145)	(850)	19,129		13,389	(8,115)	5,274	(621,140)
July - est.	(621,140)	(832)	20,425		13,486	(8,174)	5,312	(606,859)
Aug. - est.	(606,859)	(813)	48,907		14,556	(8,822)	5,734	(564,499)
Sept. - est.	(564,499)	(756)	27,767	3/	17,777	(10,775)	7,002	(544,490)
Oct. - est.	(544,490)	(730)	34,519		32,866	(19,920)	12,946	(523,647)
Nov. - est.	(523,647)	(702)	52,463		40,743	(24,695)	16,048	(487,934)
Dec. - est.	(487,934)	(654)	33,853		48,859	(29,614)	19,245	(473,980)
Total 2020		($9,980)	$398,469		$371,368	($225,092)	$146,276	
Jan. 2021 - est.	($473,980)	($1,460)	$89,022		$76,060	($55,511)	$20,549	($406,967)
Feb. - est.	(406,967)	(1,253)	45,143		67,280	(49,103)	18,177	(381,254)
Mar. - est.	(381,254)	(1,174)	61,936		59,570	(43,476)	16,094	(336,586)
Apr. - est.	(336,586)	(1,037)	88,841		40,372	(29,465)	10,907	(259,689)
May - est.	(259,689)	(800)	80,625		22,362	(16,321)	6,041	(185,905)
Jun. - est.	(185,905)	(573)	43,337		15,913	(11,614)	4,299	(147,440)
Jul. - est.	(147,440)	(454)	46,317		15,647	(11,420)	4,227	(105,804)
Aug. - est.	(105,804)	(326)	110,781		17,661	(12,889)	4,772	(121)
Total 2021 YTD		($7,077)	$566,002		$314,865	($229,799)	$85,066	

1/ Reflects the cost of short-term debt of 1.610% authorized in Docket No. G004/GR-15-879 through December 2020 and reflects the proposed short term cost of debt of 3.693% in Great Plains pending rate case, Docket No. G004/GR-19-511. Great Plains is proposing to utilize the pending short-term cost of debt effective January 1, 2021.

2/ Rates effective with service rendered on and after:

	Current: September 1, 2019 - December 31, 2020 Docket No. G004/M-19-287.	Proposed: January 1, 2021 - August 31, 2021 Docket No. G004/M-20- .
CCRC	$0.0556	$0.0818
CCRA	($0.0337)	($0.0597)

3/ Includes 2019 projected financial incentive of: $0

4/ Due to the COVID-19 pandemic, estimated 2020 monthly charges are expected to be 75% of the prior year's actual monthly charges.

GREAT PLAINS NATURAL GAS CO.
PERFORMANCE INCENTIVE MODEL

Inputs	
3-year Weather-Normalized Sales Average (Dth)	5,580,608
1.0% Energy Savings	55,806
Size of steps in Energy Savings	5,581
Approved CIP Budget	$902,858
Approved CIP Energy Goal	57,307
Estimated Net Benefits at Approved Goal	$1,610,153
Energy savings at 1.5%	83,709

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%	5,581	0.00%	$156,798	**$0**	$0.00	$0.00
0.2%	11,161	0.00%	$313,596	**$0**	$0.00	$0.00
0.3%	16,742	0.00%	$470,395	**$0**	$0.00	$0.00
0.4%	22,322	0.00%	$627,193	**$0**	$0.00	$0.00
0.5%	27,903	0.00%	$783,991	**$0**	$0.00	$0.00
0.6%	33,484	0.00%	$940,789	**$0**	$0.00	$0.00
0.7%	39,064	6.25%	$1,097,587	**$68,599**	$1.76	$12.29
0.8%	44,645	7.00%	$1,254,385	**$87,807**	$1.97	$3.44
0.9%	50,225	7.75%	$1,411,184	**$109,367**	$2.18	$3.86
1.0%	55,806	8.50%	$1,567,982	**$133,278**	$2.39	$4.28
1.1%	61,387	9.25%	$1,724,780	**$159,542**	$2.60	$4.71
1.2%	66,967	10.00%	$1,881,578	**$188,158**	$2.81	$5.13
1.3%	72,548	10.00%	$2,038,376	**$203,838**	$2.81	$2.81
1.4%	78,129	10.00%	$2,195,174	**$219,517**	$2.81	$2.81
1.5%	83,709	10.00%	$2,351,973	**$235,197**	$2.81	$2.81
1.6%	89,290	10.00%	$2,508,771	**$250,877**	$2.81	$2.81
1.7%	94,870	10.00%	$2,665,569	**$266,557**	$2.81	$2.81
1.8%	100,451	10.00%	$2,822,367	**$282,237**	$2.81	$2.81
1.9%	106,032	10.00%	$2,979,165	**$297,917**	$2.81	$2.81
2.0%	111,612	10.00%	$3,135,963	**$313,596**	$2.81	$2.81

2019 Great Plains

Projected Gas CIP Incentive Results	
Spending	$499,310
Energy Saved (Dth)	13,175
Net Benefits Achieved	$227,105
Resulting Incentive	
Achievement Level	0.24%
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%**