



2016 – 2017

ENERGY EFFICIENCY PROGRAM

ANNUAL REPORT

June 29, 2018

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**RATON NATURAL GAS COMPANY
2016-2017 ENERGY EFFICIENCY PROGRAM ANNUAL REPORT**

Raton Natural Gas (“RNG”) hereby submits this 2016-2017 Annual Report on its Energy Efficiency (“EE”) Programs in compliance with the requirements of the New Mexico Public Regulation Commission’s (“NMPRC” or “Commission”) EE Rule, codified as 17.7.2 NMAC. Section 17.7.2.14 of that Rule requires each public utility to file an annual report in which it describes the utility’s actions to comply with the Efficient Use of Energy Act, NMSA 1978 Section 62-17-1, *et seq.* (“EUEA”).

BACKGROUND AND INTRODUCTION

RNG has approximately 2,950 customers located in the City of Raton. The service area is comprised of approximately eight (8) square miles.

RNG filed its Application for approval of its 2016-2017 Energy Efficiency Program (“2016/2017 EE Program”) in Case No. 16-00270-UT on October 11, 2016. The Program Plan was approved by NMPRC on March 29, 2017. The 2016/2017 Program became available to customers on May 1, 2017. This 2016/2017 Annual Report covers all costs incurred in the implementation of the programs and all customer participation in the programs from May 1, 2017, through April 30, 2018.

The Commission issued its Final Order Adopting the Recommended Decision in Case 16-00270-UT on March 29, 2017. In that Final Order, the Commission did the following:

- a. Incorporated by reference the Recommended Decision in Case 16-00270-UT;
- b. Approved RNG’s Application of its 2016/2017 Energy Efficiency Program;
- c. Approved all the modifications stated in the Recommended Decision proposed by Commission Staff and accepted by RNG;
- d. Rejected Advice Notice No. 51 and Original Rate No. 6, Energy Efficiency Rider and directed RNG to file an advice notice consistent with the modifications proposed by Staff;
- e. Required RNG to file its annual report concerning its 2016/2017 EE Program on or before January 1, 2018;
- f. Required RNG to include in its annual report a description of its specific efforts to develop an energy efficiency portfolio of programs to be offered to its commercial class of customers and to provide a description of those possible programs in its next EUEA application;
- g. Required RNG to file all future reports required by the EUEA, the EE Rules and the Final Orders in Case NO. 07-00318, Case No. 15-00247-UT, and Case 16-00270-UT.

On April 3, 2017, in compliance with Commission's Final Order and the Decretal Paragraph D, RNG submitted its Advice Notice No. 52, which set forth RNG's Original Rate No. 6, the Energy Efficiency Rate Rider which went into effect for residential service in April, 2017.

On November 29, 2017, the Commission issued its Final Order Granting the Unopposed Motion For a Variance to the EE Rule Filing Deadline. In that Final Order, the Commission granted:

- a. the Company's 2017 annual report for its 2016/2017 EE program must be filed by July 1, 2018;**
- b. the Company's 2018/2019 EE Rule Plan Application must be filed by August 31, 2018.**

SECTION 1: EXECUTIVE SUMMARY

RNG'S 2016-2017 EE Program Annual Report begins with an executive summary for the performance of the two measures approved in Case No. 16-00270-UT on March 29, 2017. RNG's Education Program began in December 1, 2016; RNG's Low-Flow Showerhead Kit program and Rate Rider No. 6 are included in this Annual Report for the period May 1, 2017, through April 30, 2018.

1. The Energy Efficiency community local forums and elementary education program sponsored by RNG to increase customer awareness of energy efficiency measures.
2. The Low Flow Showerhead program package is available free to RNG residential customers through on-line and in -office request applications. RNG's kits include a low-flow showerhead, a kitchen aerator, and a bathroom aerator with instructions in English and Spanish for self-installation.

Table 1 lists RNG's EE Programs and the corresponding unit savings, participation, total annual savings, lifetime savings, and EE Program approved costs.

Table 1: Actual 2016-2017 EE Program Participation and EE Program Approved Costs

Program	Annual Savings Per Unit (Therms)	Total Participation	Total Annual Savings (Therms)	Lifetime Savings (Therms)	Total Actual Program Costs
Education Programs	N/A	149	N/A	N/A	\$3,575
Low-Flow Kits	40.4	114	4,606	46,060	\$1,282
Portfolio Costs	N/A	N/A	N/A	N/A	\$6,468
TOTAL		263	4,606	46,060	\$11,325

Table 2 provides the EE Program approved costs for RNG's Energy Efficiency 2016-2017 Plan portfolio from May 1, 2017, through April 30, 2018.

Table 2: Actual 2016-2017 EE Program Approved Costs by Plan

Program	Internal Administration	Promotional	Portfolio Costs	Total Actual Program Costs
Education Programs	\$152	\$3,423	N/A	\$3,575
Low-Flow Kits	\$1,282	\$0	N/A	\$1,282
Non-Program Specific	N/A	N/A	\$6,468	\$6,468
TOTAL	\$1,434	\$3,423	\$6,468	\$11,325

Internal Administration:

The internal administrative costs are RNG's direct expenses related to the individual energy efficiency program's implementation. The materials for the Education Program performed in the elementary school for fourth (4th) graders cost \$151.94. The Low-Flow showerhead kits distributed to qualified residential customers cost \$1,282 for the 114 kits distributed. The kits included a low-flow showerhead, a kitchen aerator, and a bathroom aerator with instructions in English and Spanish for self-install.

RNG internal staff labor costs to implement the 2016-2017 EE programs are reported in Section 5.

Promotional:

Promotional costs were used primarily for the Education Program and delivered through the local radio station with daily spots. The energy efficiency informational campaigns promoted different measures for the community at large to raise awareness. The promotional costs were \$3,423.51

Portfolio Costs:

The portfolio costs were expenses related to RNG's implementation of the 2016-2017 Plan and are non-program specific. The portfolio costs reported are for outside legal costs to represent RNG in the filing and case management of its 2016-2017 Plan Application and programs. Portfolio costs were \$6,467.80.

SECTION 2: TARIFF COLLECTIONS

Advice Notice 52 was filed April 3, 2017, in compliance with Decretal Paragraph D of the Commission's Final Order in Case No. 16-00270-UT. Effective with the next billing cycle, RNG charged its residential customers the approved Rate Rider No. 6 rate of \$.0043/ccf. Total recoveries through Rate Rider No. 6 from May 1, 2017 through April 30 2018, were \$10,902.42.

Tariff Reconciliation:

The beginning balance in the Energy Efficiency Rate Rider account at May 1, 2017, was \$0. Expenses for the period May 1, 2017, through April 30, 2018, totaled \$11,325.75. Collections for the same period May 1, 2017, through April 30, 2018, totaled \$10,902.42.

Based on the above and the NMPRC's approval of RNG's 2016-2017 Program Year budget of \$11,337 in Case 16-00270-UT, RNG has calculated that \$.0002 per ccf is required to cover the under-collection. Please see Appendix A for Rate Rider No. 6 Reconciliation Costs.

SECTION 3: PROGRAM REPORT FINDINGS

The Commission's Final Order Adopting Recommend Decision in Case 16-00270-UT, approved RNG's variance from the requirement to employ an independent program evaluator to assess quantitative estimation, verification, and cost-effectiveness of RNG's programs.¹

RNG's 2016-2017 program year evaluation of the Low-Flow Showerhead (LFS) Program consists of a customer survey conducted to confirm that the LFS kits had been installed and to determine customer satisfaction and qualitative assessment of the LFS program. RNG's 2016-2017 program year evaluation of the Education Program consists of a review from the elementary school's principal and participating teachers.

Low-Flow Showerhead Program:

For the RNG Low-Flow Showerhead ("LFS") Program, RNG distributed 114 kits for the period May 1, 2017 through April 30, 2018. RNG promoted the LFS program through its website, its monthly newsletter, radio spots to increase energy efficiency Public Awareness, in its Elementary Education program, and with promotional information flyers and applications in its office lobby.

Applications for the LFS program were provided on RNG's website. Residential customers were asked to provide their account number, service address, email address, phone number and to verify a natural gas water heater at their service address.

Distribution for the LFS kits was through RNG's office. First, RNG customer service personnel reviewed the applications; second, RNG notified the customer by phone or email to pick-up the LFS kit at the RNG office.

Participation objectives for low-income residents were accomplished through coordination with Raton Housing Authority to distribute kits to residential customers residing in low-income housing. For the 2016-2017 Program, RNG's LFS program achieved a 65.7% participation level with seventy-five (75) LFS kits distributed to low-income residential customers. RNG paid \$11.25 per LFS kit; therefore, 75 kits to low-income residents is equal to \$834.75 and yields 46.8% of the total 2016-2017 LFS Program Cost.

Customer qualitative evaluation of the LFS kits was conducted by a telephone survey of seventy six (76) residential customers who picked-up the LFS kit. Appendix B details the survey results.

RNG concluded from the qualitative customer survey results, participation rate, UCT, and the Cost per Therm saved, that the LFS Kit program has been an impactful energy efficiency program for RNG's residential customers. RNG will be continuing the program.

¹ See RD, section VI. Conclusion, paragraph 14, page 38

Education Program:

RNG partnered with the Raton Center for Sustainable Community to sponsor a local energy efficiency forum for homeowners, business owners, and contractors on December 15, 2016. ConservFirst provided energy efficiency ideas and information to 58 attendees.

RNG sponsored public service messages throughout the 2016-2017 Program, which provided energy efficiency information and consumer advice on the local radio station, KRTN. KRTN is the only local broadcast medium that provides the citizens of City of Raton and surrounding areas with up-to-date local news and weather as well as community information. While RNG cannot quantify the energy savings impact of its public service messages, the Utility believes that public service messages are an effective way to reach its customers with useful energy efficiency information.

RNG partnered with the Raton Public Schools to bring energy efficiency concepts to fourth grade students. On September 24, 2017, RNG conducted "Energy Wise" for eighty seven (87) 4th grade students. RNG worked with the Principal and 4th Grade Teachers to develop a curriculum that introduced energy and energy savings ideas. Each student completed the program with a booklet, viewing a short movie, and signing an "energy contract" to discuss energy savings with family members and friends. A general evaluation of energy efficiency program was provided by the principal and four (4) teachers.

The Commission approved in Final Order Case No. 15-00247-UT an imputed UCT of one (1) for RNG's Education Program. RNG believes the public service messages, the local forums, and the educational efforts in the public schools are incapable of being quantified, but should be accorded a UCT of one (1) for the positive impact on public awareness for all energy efficiency measures.

SECTION 4: PROGRAM PARTICIPANTS, ENERGY SAVINGS, AND COSTS

Estimated Program Costs vs Actual Program Costs with Program Participants Served

To provide a comparison of estimated savings and costs approved for the 2016-2017 Program Year to the actual savings and costs, please refer to Table 3 and Table 4 below.

Table 3 lists the estimated savings and program costs approved in Case No. 16-00247-UT.

Table 3: Estimated 2016-2017 EE Program Participation, EE Program Budget, and UCT Results

Program	Estimated Participation	Estimated Annual Therms Saved	Estimated Lifetime Therms Saved	Case No. 16-00270-UT Program Budget	UCT	Cost per/Therm Saved
Education Programs	165	N/A	N/A	\$4,532	1	N/A
Low-Flow Kits	100	4,040	40,400	\$1,189	15.90	\$.0294
Portfolio Costs	N/A	N/A	N/A	\$5,616	N/A	N/A
TOTAL	265	4,040	40,400	\$11,337	1.67	\$.2806

Table 4 provides the actual savings and program costs for the 2016-2017 EE Program Year.

Table 4: Actual 2016-2107 EE Program Participation, EE Program Costs, and UCT Results

Program	Actual Participation	Annual Therms Saved	Lifetime Therms Saved	Case No. 16-00270-UT Program Actual Costs	UCT	Cost per/Therm Saved
Education Programs	149	N/A	N/A	\$3,575	1	N/A
Low-Flow Kits	114	4,606	46,060	\$1,282	17.80	\$.02783
Portfolio Costs	N/A	N/A	N/A	\$6,468	N/A	N/A
TOTAL	263	4,606	46,060	\$11,325	2.02	\$.2459

Economic Benefits:

Table 5 calculates the Net Present Value (NPV) for the 2016-2017 EE Program Year using the actual participation and costs.

Table 5: Actual 2016-2017 EE Program Economic Benefits and NPV

Program	Cost per/Therm Saved	Total Annual Savings (Therms)	Economic Benefits*	NPV of Economic Benefits**
Education Programs	N/A	N/A	N/A	N/A
Low-Flow Kits	\$.02783	4,606	\$4,082	\$22,824
Portfolio Costs	N/A	N/A	N/A	N/A
TOTAL	N/A	4,606	\$4,082	\$22,824

*See Appendix C for Avoided Costs

**2016-2017 EE Plan approved imputing RNG's current cost of capital for NPV

SECTION 5: OTHER INFORMATION REQUIRED BY THE COMMISSION

RNG Staff Costs:

In the Commission’s Final Order for Case No. 16-00270-UT, RNG was directed to report its internal staff costs for the 2016-2017 EE Program to satisfy the requirement in 1.7.7.14 (C) (5) NMAC for estimated and actual monetary costs.²

Due to the small size of the utility, RNG utilized its staff to review LFS applications, distribute LFS kits, and to conduct telephone surveys of residential customers who received LFS kits. RNG’s staff also coordinated with the Raton Public Schools administration to deliver the Education Program, “Energy Wise”, to the elementary fourth grade students. Additionally, RNG staff interfaced with outside regulatory counsel, to assist with preparation and submittal of NMPRC compliance reporting. Throughout the 2016-2017 Program Year, RNG tracked the personnel labor time for these various activities.

Table 6 provides RNG staff labor expenses as a cost allocation to the total utility monetary cost.

Table 6: 2016-2017 EE Program Total Monetary Utility Costs

Program	RNG Staff Administration	Internal Administration	Promotional	Portfolio Costs	Total Utility Program Costs
Education Programs	\$290	\$152	\$3,423	N/A	\$3,865
Low-Flow Kits	\$784	\$1,282	\$0	N/A	\$2,066
Non-Program Specific	\$945	N/A	N/A	\$6,468	\$7,413
TOTAL	\$2,019	\$1,434	\$3,423	\$6,468	\$13,344

² See Recommended Decision, Discussion and Recommendations, page 21, first paragraph

Table 7 provides the 2016-2017 EE Program UCT calculated using the Total Monetary Utility Costs . With RNG’s staff costs included in the total program costs, the 2016-2017 EE Program Plan maintained a UCT above one (1), which meets the EUEA statutory requirement of a cost-effective energy efficiency program.

Table 7: 2016-2017 EE Program UCT with Total Monetary Utility Costs

Program	Annual Therms Saved	Lifetime Therms Saved	Cost per/Therm Saved	Economic Benefits*	NPV of Total Utility Costs Economic Benefits**	UCT
Education Programs	N/A	N/A	N/A	N/A	N/A	1
Low-Flow Kits	4,606	46,060	\$.02783	\$4,082	\$22,824	11.05
Portfolio Costs	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL	4,606	46,060	\$.2459	\$4,082	\$22,824	1.71

*See Appendix C for Avoided Costs

**2016-2017 EE Plan approved imputing RNG’s current cost of capital for NPV

Upcoming 2018-2019 EE Program Plan Energy Efficiency Measures for RNG Commercial Customers:

In Decretal Paragraphs F of the Commission’s Final Order Adopting Recommended Decision issued on March 29, 2017, the Commission included the requirement for RNG’s annual report to include a description of RNG’s specific efforts to develop an energy efficiency portfolio of programs for the commercial customers and to provide a description of those possible programs that might be offered in RNG’s next EUEA application.

RNG Commercial Base Profile:

RNG’S commercial customer base comprises approximately 11% of total customers. For the 2016-2017 EE Plan period of May 1, 2017, through April 30, 2018, the commercial account volumes were approximately 35% of the utility’s total volume. Excluding the hotel industry and government agencies, commercial businesses in the City of Raton are small business locations. Therefore, RNG’s planning for an EE Program will require the attention of this small business commercial profile.

Initial Coordination:

On October 18, 2017, RNG conducted a 2018 Energy Efficiency Plan Public Advisory Telephonic Meeting. With industry representatives, New Mexico Gas Company (NMGC) representatives, New Mexico Energy Minerals and Natural Resources Department (EMNRD) representative, and New Mexico Public Regulation Commission (NMPRC) Staff representative participating, RNG gathered important recommendations and comments for its upcoming 2018 EE Program Plan.

Specific to the topic of energy efficiency measures for RNG's commercial base, the Public Advisory Group Members provided the following recommendations:

- Commercial building energy assessments conducted by EMNRD or third party contractors;
- Specific equipment assessments and inspections for large commercial buildings conducted by third party contractors;
- Trial prescriptive rebate program for qualified newly purchased HVAC equipment and installed by licensed contractors at commercial customer's locations;
- Trial commercial low-flow water saving kits designed for small businesses, the hotel/motel/restaurant industry, and school locations;
- Other energy efficiency kits such as programmable thermostats

Detailed meeting minutes from the 2018 EE Plan Public Advisory Meeting will accompany RNG's 2018-2019 EE Plan Application on August 31, 2018.

RNG continues development of its 2018-2019 energy efficiency measures designed for small commercial businesses and government locations. From the documented EE Case experiences of the two larger New Mexico natural gas utilities, Zia Natural Gas and New Mexico Gas Company, RNG is considering the following common key points for successful energy efficiency measures for small businesses.

1. Develop a custom EE program to meet various needs of commercial customers and various commercial locations, particularly with small commercial base and small volumes;
2. Provide a rebate program designed for large high efficiency natural gas appliances, either as upgrades or replacements, to reduce or eliminate electric costs with a focus on space and water heating;
3. Provide a rebate program designed for smaller natural gas high efficiency appliances, either as upgrades or replacements, to reduce or eliminate electric costs with a focus on space and water heating;
4. In absence of appliance upgrades or replacements, provide energy efficiency programs to reduce energy consumption with measures such as programmable thermostats or low-flow water kits;
5. Partner with external administrators for industry expertise and building energy assessments that identify commercial customer energy efficiency requirements;
6. Identify potential energy efficiency programs and survey commercial customers for estimated participants, energy savings, costs, and resultant UCT calculations.

RNG initiated a telephone commercial customer survey of its fifty largest commercial consumption customers. RNG will finalize the current survey and expand the survey to include smaller commercial consumption customers in July. Final survey results will be presented in the 2018-2019 Energy Efficiency Program Plan Application filed on or before August 31, 2018. (Please see Appendix D for initial survey results for 12% of RNG commercial customer base).

The following energy efficiency measures presented in the survey are being further researched by RNG for potential participation rates, high energy savings, and low program costs.

- 1. Rebates for purchase of new high efficiency natural gas furnaces and installations by licensed contractors;**
- 2. Rebates for purchase of new natural gas space or water heaters and installations by licensed contractors;**
- 3. Commercial low-flow water kits for hotel/motel and restaurant businesses;**
- 4. Programmable thermostats for smaller businesses.**

Appendix A: Reconciliation Calculations Rate Rider No. 6

Program Reconciliation and Cost Recovery Calculation for 2016-2017 EE Plan

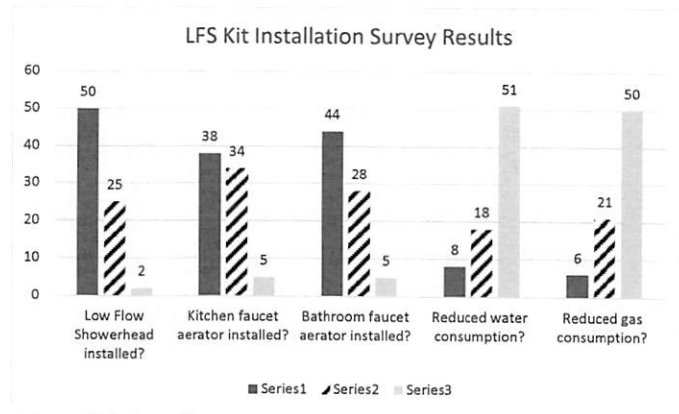
Line		Over/(Under)
<u>No.</u>		Recovered
		<u>Amounts</u>
1	Reconciliation Amounts at 4/30/17	\$ -
2	2016-2017 Plan expenses	\$ 11,325.75
3	Cost Recovery 5/1/17 to 4/30/18	\$ 10,902.42
4	Net Under Collection for 2016-2017	\$ (423.33)
5	Projected Residential ccf	2,500,000
6	Proposed Cost Recovery per ccf	\$ 0.0002

<u>Rate Rider No. 6 - Residential</u>			
		Current	Rider
		Recovery	No. 6
	ccf	Number of Customers	Rate
			Recovery
5/1/2017 through 4/30/ 2018			
Total Rate Rider No. 6	2,536,064	2653	\$ 0.0043 \$10,902.42

Appendix B: Low-Flow Showerhead (LFS) Kit Survey Results

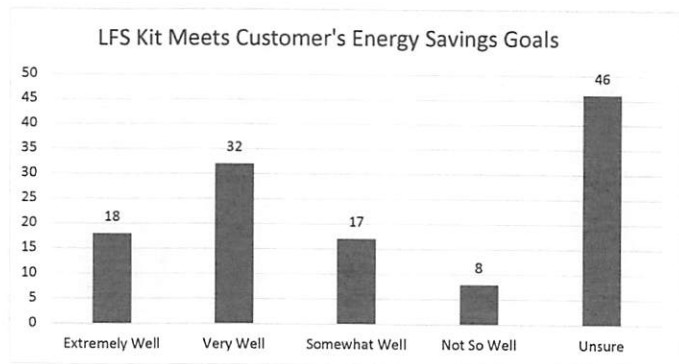
1. LFS Kit Installation

	Results		
	Yes	No	Unsure
Is your Low Flow Showerhead installed?	50	25	2
Is your kitchen faucet aerator installed?	38	34	5
Is your bathroom faucet aerator installed?	44	28	5
Have you noticed reduced water consumption?	8	18	51
If the LFS Kit been installed over a month, do you notice any reduced gas consumption?	6	21	50



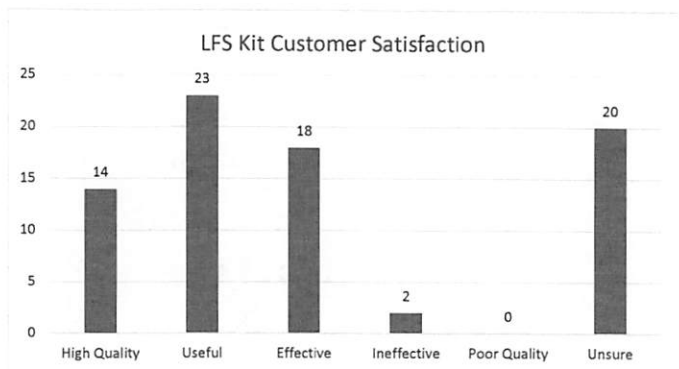
2. How well does the LFS Kit meets your goals to reduce your residential energy needs?

Options	Results
Extremely Well	18
Very Well	32
Somewhat Well	17
Not So Well	8
Unsure	46



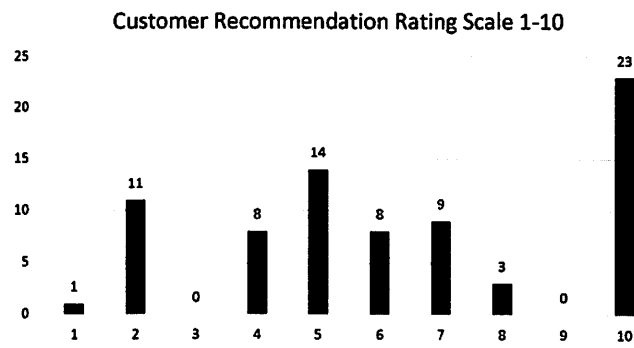
3. Which of the following words would you use to describe the LFS Kit? Select all that apply.

Options	Results
High Quality	14
Useful	33
Effective	28
Ineffective	3
Poor Quality	0
Unsure	20



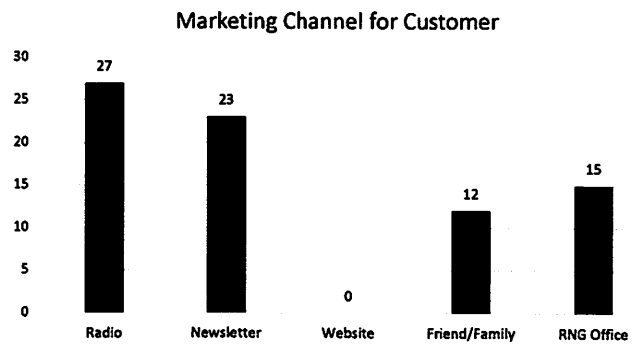
**4. How likely would you recommend the LFS Kit to a friend or colleague?
From a scale of 1-10 (1 not at all likely and 10 extremely likely)**

Options	Results
1	1
2	11
3	0
4	8
5	14
6	8
7	9
8	3
9	0
10	23



5. How did you hear about the the Raton Natural Gas Low Flow Showerhead program?

Options	Results
Radio	27
Newsletter	23
Website	0
Friend/Family	12
RNG Office	15



Appendix C: RNG Avoided Costs

Avoided Energy Costs

2016-2017 EE Plan Period	Purchased Gas Cost (\$/therm)	RNG Cost of Service (\$/therm)	TOTAL Avoided Cost (\$/therm)
5/1/17 to 4/30/18	\$0.4561	\$0.4303	\$0.8864

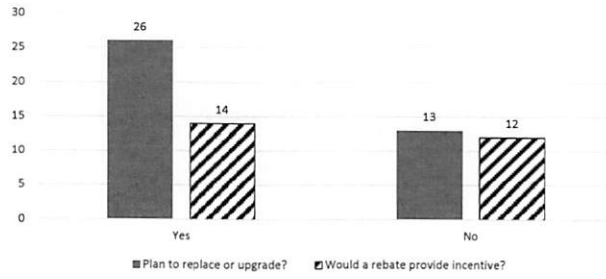
Appendix D: Intital Telephone Survey of Fifty Highest Consumption Commercial Customers

Percentage of Respondents: 76.4%

1. Within the next 5 years, do you plan to replace or upgrade any natural gas appliances for a more energy efficient model?

Options	Results
No	26
Yes	13

5 Year Upgrade Plan Data



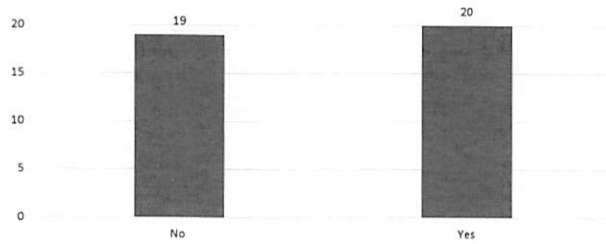
2. If your answer is no, would a rebate provide incentive to do so?

Options	Results
No	12
Yes	14

3. Water heaters and turnaces both use large amounts of energy. Switching from electric to natural gas offers you the most energy and money savings. Would you switch any electric appliances with a

Options	Results
No	19
Yes	20

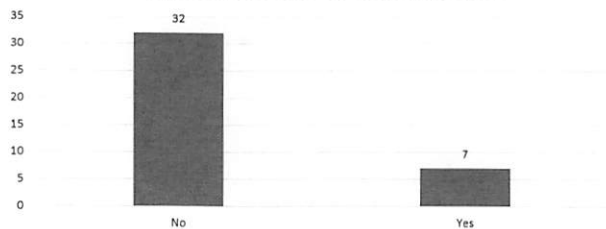
Interest in Changing from Electric to Gas with a Rebate



4. (If a motel/hotel): What level of interest do you have for low-flow showerheads?

Options	Results
No	32
Yes	7

Motel/Hotel Interest in Low Flow Showerheads



5. What level of interest do you have for efficiency upgrade to space or water heater with a smaller cash rebate?

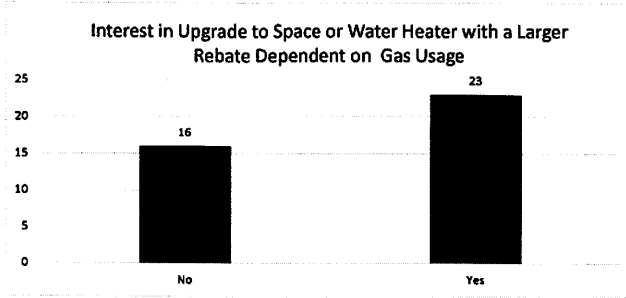
Options	Results
No	26
Yes	13

Interest in Upgrade to Space or Water Heater with a Smaller Cash Rebate



6. What level of interest do you have for efficiency upgrade to space or water heater with a larger rebate dependent on the gas usage?

Options	Results
No	16
Yes	23



7. What level of interest do you have for programmable thermostat in office areas?

Options	Results
No	17
Yes	22

