

BEFORE THE CORPORATION COMMISSION OF THE STATE OF OKLAHOMA

APPLICATION OF OKLAHOMA NATURAL GAS)
COMPANY, A DIVISION OF ONE GAS, INC.,)
FOR APPROVAL OF ITS DEMAND PORTFOLIO) CAUSE NO. PUD 2022-00036
OF CONSERVATION AND ENERGY)
EFFICIENCY PROGRAMS FOR CALENDAR)
YEARS 2023 THROUGH 2025)

TESTIMONY AND EXHIBITS

OF

PAUL H. RAAB

ON BEHALF OF

OKLAHOMA NATURAL GAS

April 6, 2022

1 Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

2 A. My name is Paul H. Raab, and my business address is 5313 Portsmouth Road,
3 Bethesda, MD 20816. I am an independent economic consultant.

4 Q. ON WHOSE BEHALF ARE YOU APPEARING TODAY?

5 A. I am appearing on behalf of Oklahoma Natural Gas Company ("Oklahoma Natural"
6 or "the Company").

7

8 **I. QUALIFICATIONS**

9 Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?

10 A. I have a B.A. in Economics from Rutgers University and an M.A. from the State
11 University of New York at Binghamton with a concentration in Econometrics. While
12 attending Rutgers, I studied as a Henry Rutgers Scholar.

13 Q. PLEASE DESCRIBE YOUR BUSINESS EXPERIENCE.

14 A. I have been providing consulting services to the utility industry for over forty years,
15 having assisted electric, gas, telephone, and water utilities; Commissions; and
16 intervenor clients in a variety of areas. I am trained as a quantitative economist so
17 that most of this assistance has been in the form of mathematical and economic
18 analysis and information systems development. My areas of focus are planning
19 issues, costing and rate design analysis, and depreciation and life analysis. I
20 began my career with the professional services firm that is now known as Ernst &
21 Young, where I was employed for ten years.

22 Q. WHAT IS YOUR SPECIFIC EXPERIENCE WITH THE DESIGN AND
23 IMPLEMENTATION OF CONSERVATION AND ENERGY EFFICIENCY

1 PROGRAMS?

2 A. Since 1990, I have assisted numerous natural gas utilities in the design,
3 implementation and evaluation of conservation and energy efficiency programs.
4 These include Washington Gas in the District of Columbia, Maryland, and Virginia;
5 Atmos Energy and Kansas Gas Service in Kansas; UGI Utilities, Inc. in
6 Pennsylvania; Piedmont Natural Gas Company in South Carolina; Texas Gas
7 Service in Texas; and Virginia Natural Gas Company in Virginia. I have also
8 spoken on natural gas conservation and energy efficiency programs and related
9 topics at a number of industry conferences.

10 I have worked with Oklahoma Natural from the beginning of its efforts to
11 develop a conservation and energy efficiency capability within the Company. This
12 has included the rulemaking process in Oklahoma and the design, implementation,
13 and evaluation of its current Demand Portfolio.

14 In addition to this natural gas industry-specific experience, I have also
15 assisted electric utilities in the design and implementation of conservation and
16 energy efficiency programs, and I have evaluated many electric utility programs
17 throughout the last 20 years.

18 Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE COMMISSIONS IN
19 REGULATORY PROCEEDINGS?

20 A. Yes. I have previously provided expert testimony before this Commission in
21 numerous causes and have also provided expert testimony in over twenty-five
22 state regulatory jurisdictions over my career. In addition, I have presented expert
23 testimony before the Federal Energy Regulatory Commission, the Pennsylvania

1 House Consumer Affairs Committee, the Michigan House Economic Development
2 and Energy Committee, the Province of Saskatchewan, and the United States Tax
3 Court.

4 Q. MR. RAAB, ARE YOU ASKING THAT YOUR CREDENTIALS AS AN EXPERT
5 WITNESS IN MATTERS PRESENTED BEFORE THE OKLAHOMA
6 CORPORATION COMMISSION BE ACCEPTED?

7 A. Yes, I am.

8

9

II. PURPOSE OF TESTIMONY

10 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

11 A. §165:45-23-4 of the Commission's Rules Governing Gas Service Utilities, effective
12 January 1, 2017, requires Oklahoma Natural to propose, at least once every three
13 years, and be responsible for the administration and implementation of a Demand
14 Portfolio of Demand Programs within its service territory. These rules further
15 require that Oklahoma Natural file an application for the approval of the Demand
16 Portfolio with the Commission on or before May 1 prior to the year during which
17 the Demand Portfolio will become effective. My testimony is intended to satisfy
18 this requirement by sponsoring the Company's request for Commission approval
19 of a portfolio of programs for Program Year ("PY") 13 (calendar year 2023) through
20 PY15 (calendar year 2025).

21 Q. PLEASE SUMMARIZE THE PROPOSED CHANGES.

22 A. As an overview, the Company is not proposing significant changes to its portfolio
23 of conservation and energy efficiency programs. Rather, based on its experience

1 with its current Demand Portfolio over the previous three years, the Company is
2 proposing to modify budget levels associated with many of its programs. These
3 budget level changes increase budgeted expenditures for certain programs (the
4 Low Income Energy Efficiency Assistance Program, the tankless water heating
5 component of the Water Heater Replacement Program, the New Homes Program,
6 and the Commercial Custom Program), shift budget dollars between components
7 of certain programs (the Heating System Replacement Program and the Natural
8 Gas Clothes Dryer Replacement Program), and adjust budget dollars within certain
9 administrative categories (Evaluation, Measurement and Verification ("EM&V"),
10 Program Administration, and Research and Development ("R&D") activities). The
11 net effect of these changes is a requested budget increase of about 9.76% over
12 Commission-approved PY10-PY12 budget levels.

13 Q. PLEASE DETAIL THE BUDGET IMPLICATIONS OF THESE PROPOSED
14 CHANGES.

15 A. Exhibit PHR-1 summarizes the budget changes that result from the Company's
16 proposals. Exhibit PHR-1, Schedule 1, provides a summary of the Conservation
17 and Energy Efficiency Program budget under which the Company is currently
18 operating, approved by the Commission in its Order No. 705112 in Cause No. PUD
19 201900021. Exhibit PHR-1, Schedule 2, provides a summary of the budget that
20 reflects the Company's proposed changes for Program Years 13 through 15.
21 Finally, Exhibit PHR-1, Schedule 3, provides a comparison of the proposed budget
22 to the budget under which the Company is currently operating.

23 In general, the Company is proposing budget changes that reflect a

1 reallocation of dollars among programs, and an increase in the budgets of certain
2 programs that are beginning to exceed existing approved budget levels.
3 Specifically, the Company is proposing to increase program expenditures in
4 Program Years 13 through 15 by \$1,550,000 (9.76%) relative to Program Years
5 10 through 12. The specific program budget modifications are discussed in
6 subsequent sections of my testimony.

7

8

III. IDENTIFICATION OF EXHIBITS

9

Q. DO YOU SPONSOR ANY EXHIBITS IN SUPPORT OF YOUR TESTIMONY?

10

A. Yes, I sponsor two exhibits. Exhibit PHR-1 contains three schedules that
11 summarize the budget changes resulting from the Company's proposed changes
12 discussed above. Exhibit PHR-2 provides Commission-required information
13 related to customer impacts. It also contains three schedules. Schedule 1 details
14 the assumptions that were made to develop the benefit/cost results for the
15 Company's proposed programs. Schedule 2 contains the measure level
16 benefit/cost results for the Company's proposed programs and Schedule 3
17 contains the program level benefit/cost results.

18

The above-designated exhibits were prepared by me or under my direction
19 and supervision.

20

21

IV. ORGANIZATION OF TESTIMONY

22

Q. HOW IS YOUR TESTIMONY ORGANIZED?

23

A. My testimony contains one additional section, Section V, which is the Company's

1 application to modify and extend its Demand Portfolio for Program Years 13
2 through 15.

3

4 **V. PROPOSED CHANGES FOR PROGRAM YEARS 13 THROUGH 15**

5 Q. WHY IS THE COMPANY PROPOSING CHANGES TO ITS DEMAND
6 PORTFOLIO FOR 2023 THROUGH 2025?

7 A. §165:45-23-4 of the Commission's Rules Governing Gas Service Utilities, effective
8 January 1, 2017, requires all natural gas utilities under rate regulation of the
9 Commission and having more than 25,000 meters in the state of Oklahoma to
10 propose, at least once every three years, and be responsible for the administration
11 and implementation of a Demand Portfolio of Demand Programs within their
12 service territories. These rules further require that Oklahoma Natural file an
13 application for the approval of the Demand Portfolio with the Commission on or
14 before May 1 prior to the year during which the Demand Portfolio will become
15 effective. The instant filing is intended to satisfy these requirements.

16 Q. WHAT CHANGES DOES THE COMPANY PROPOSE TO ITS DEMAND
17 PORTFOLIO FOR THE UPCOMING THREE-YEAR PERIOD?

18 A. Exhibit PHR-1 summarizes the budget changes resulting from the Company's
19 proposals. Exhibit PHR-1, Schedule 1, provides a summary of the budget currently
20 approved by the Commission and under which the Company's Demand Portfolio
21 is currently being offered. Exhibit PHR-1, Schedule 2, provides a summary of the
22 budget that reflects the Company's proposed changes for Program Years 13
23 through 15. Exhibit PHR-1, Schedule 3, provides a summary of the proposed

1 budget changes.

2 As can be seen in Exhibit PHR-1, Schedule 3, the Company is generally
3 proposing budget changes that reflect a reallocation of dollars among programs,
4 and about a 9.76% overall budget increase relative to Program Years 10 through
5 12, primarily to accommodate the increased demand for four of the Company's
6 most popular programs: the Low-Income Energy Efficiency Assistance Program,
7 the Water Heater Replacement Program, the New Homes Program, and the
8 Commercial Custom Program. While the specific program budget modifications
9 are discussed later in my testimony, it is important to recognize that more than
10 100% of this increase goes directly to customers in the form of services or
11 inducements, further emphasizing the efficiency with which the Company is
12 delivering energy efficiency to its customers.

13 Q. WHAT ARE THE SPECIFIC CHANGES THAT THE COMPANY IS PROPOSING
14 FOR THE UPCOMING THREE-YEAR PERIOD?

15 A. The Company is proposing the following changes to its programs for the upcoming
16 three-year period:

- 17 1. An increase in the budget for the Low-Income Energy Efficiency Assistance
18 Program;
- 19 2. An increase in the budget for the tankless water heater component of the
20 Water Heater Replacement Program;
- 21 3. An increase in the budget for the high efficiency gas furnace component of
22 the Heating System Replacement Program, offset by a decrease in the
23 budget for the electric to high efficiency gas furnace component of the
24 program, which results in an overall decrease in the total budget dollars of
25 the Heating System Replacement Program;
- 26 4. A reduction of the total budget dollars for the Natural Gas Clothes Dryer
27 Replacement Program resulting from a reduction in the budget for the
28 standard efficiency component and an increase in the budget for the high

- 1 efficiency component to reflect current and anticipated participation levels;
- 2 5. An increase of total budget dollars for the New Homes Program, partially
3 offset by a reduction in budgeted inducements for the installation of dryer
4 stubs;
- 5 6. An increase of total budget dollars for the Commercial Custom Program;
- 6 7. A reduction in the amount budgeted for EM&V;
- 7 8. An increase of total budget dollars for Program Administration; and
- 8 9. An increase of total budget dollars for R&D.

9 Thus, budgets for the Energy Efficiency Education Program, Program
10 Expenses and Travel, and Program Consultation activities are proposed to remain
11 the same for Program Years 13 through 15 as they were for Program Years 10
12 through 12. The specific program changes associated with the proposed budget
13 changes are described in detail below.

14 Q. WHAT CHANGES ARE BEING PROPOSED TO THE COMPANY'S LOW-
15 INCOME ENERGY EFFICIENCY ASSISTANCE PROGRAM?

16 A. The Company is proposing to increase the budget for low-income energy efficiency
17 assistance by \$200,000 to accommodate more customers.

18 Q. WHY IS THE COMPANY PROPOSING THESE CHANGES?

19 A. The Company's Low Income Energy Efficiency Assistance Program has been
20 operated as a cooperative program with Oklahoma Gas & Electric ("OG&E") in
21 Oklahoma City and Public Service Company of Oklahoma ("PSO") in Tulsa since
22 January 1, 2015. Under this program, Oklahoma Natural contributes a portion of
23 the cost needed to improve the efficiency of energy usage in low-income
24 households. Oklahoma Natural's budget for this program has always been
25 expended prior to the end of the program year. Thus, there is a greater need for

1 the services offered by these programs than Oklahoma Natural currently funds,
2 and it is proposing to increase the budget for this program to meet some of that
3 need.

4 Furthermore, the program is nationally recognized as being extremely cost
5 effective and effective at achieving energy savings. In January 2019, the American
6 Council for an Energy Efficient Economy (“ACEEE”) published a report entitled,
7 The New Leaders of the Pack: ACEEE’s Fourth National Review of Exemplary
8 Energy Efficiency Programs. This report specifically recognizes these attributes
9 of Oklahoma Natural’s Low-Income Energy Efficiency Assistance Program:

10 Because the program is offered cooperatively with electric utilities in the
11 ONG service territory, it achieves savings much more cost effectively than
12 a single fuel program. A 2017 ACEEE report, *Making a Difference:*
13 *Strategies for Successful Low-Income Energy Efficiency Programs*,
14 commended the program for providing a single point of contact for
15 customers and for contractors. The same report also indicated that the
16 program results in significant savings, having achieved the second highest
17 deep savings rank in a 2015 ACEEE survey.

18 Recent data for this program indicate savings that are 20% higher than the
19 previous value reported and greater than the highest-rated program in
20 2015.¹

21
22 Cost-effectiveness is further evidenced by the Company’s independent
23 Evaluation, Measurement and Verification (“EM&V”) results and its own
24 evaluations, reflecting in part the economies realized when one service provider
25 can install both natural gas and electric conservation measures with the same
26 overhead as a single fuel program.

¹ The New Leaders of the Pack: ACEEE’s Fourth National Review of Exemplary Energy Efficiency Programs, ACEEE Report U1901, January 2019, pp 71, 72.

1 Q. WHAT CHANGES ARE BEING PROPOSED TO THE COMPANY'S WATER
2 HEATER REPLACEMENT PROGRAM?

3 A. The Company is proposing to increase the budget for the tankless component of
4 its Water Heater Replacement Program. This change is intended to better match
5 budget levels to actual expenditures driven by an upward trend in actual
6 experienced levels in recent program years. Specifically, the Company
7 experienced participation of 1,648 customers in Program Year 9, 1,958
8 participants in Program Year 11, and 2,316 participants in Program Year 11, even
9 though the current budget is based on only 1,250 high efficiency tankless water
10 heating participants.

11 The net effect of these changes is to increase the proposed budget for the
12 Water Heater Replacement Program by \$375,000.

13 Q. WHAT CHANGES ARE BEING PROPOSED TO THE COMPANY'S HEATING
14 SYSTEM REPLACEMENT PROGRAM?

15 A. The Company is proposing to increase the budget for the high efficiency (95%+)
16 heating system replacement component by \$300,000 to reflect current
17 participation and budget levels for this component. Specifically, the Company is
18 proposing to increase the budget from 7,000, 95%+ participants to 7,500, 95%+
19 participants (compared to 7,184 Program Year 11 participants). However, this
20 increase is offset by a \$390,000 reduction in the budget for the electric to high
21 efficiency gas heating system replacement component, from 300 participants to
22 150 participants per year. This latter program component has failed to achieve
23 budgeted participation levels in any of the last three years and has exhibited a

1 downward participation trend over this same period: 240 participants in PY9, 227
2 participants in PY10, and 141 participants in PY11.

3 Q. WHAT IS THE OVERALL IMPACT ON THE PROPOSED HEATING SYSTEM
4 REPLACEMENT PROGRAM BUDGET AS A RESULT OF THESE CHANGES?

5 A. The proposed annual Heating System Replacement Program budget has been
6 reduced by \$90,000 for Program Years 13 through 15 relative to the Commission
7 approved budget levels for Program Years 10 through 12, as shown on Exhibit
8 PHR-1, Schedule 3.

9 Q. WHAT CHANGES ARE BEING PROPOSED TO THE COMPANY'S NATURAL
10 GAS CLOTHES DRYER REPLACEMENT PROGRAM?

11 A. As with the budget for the Heating System Replacement Program described
12 above, the Company is proposing a reduction of the budget for the Natural Gas
13 Clothes Dryer Replacement Program to reflect changes in actual participation in
14 the program that has been experienced during the current budget cycle.
15 Specifically, in PY9, the Company issued 2,020 rebates to customers who installed
16 standard efficiency natural gas clothes dryers and only 941 rebates to those
17 customers who installed high efficiency natural gas clothes dryers. The difference
18 narrowed in PY10 when the Company issued 1,752 rebates to customers who
19 installed standard efficiency natural gas clothes dryers and 1,106 rebates to those
20 customers who installed high efficiency natural gas clothes dryers. Finally, in
21 PY11, the Company issued 1,294 rebates to customers who installed standard
22 efficiency natural gas clothes dryers and 1,050 rebates to those customers who
23 installed high efficiency natural gas clothes dryers.

1 In view of this trend, the Company is proposing a budget for the Clothes
2 Dryer Replacement Program based on 3,000 rebates, more evenly divided
3 between Standard Efficiency and Energy Star® units than the current 2,500/500-
4 unit split. The Company will still offer an additional \$50 to participants who install
5 higher efficiency Energy Star® natural gas clothes dryers and will continue to offer
6 event promotion inducements of \$100 to incent customers to take immediate
7 action.

8 Q. WHAT IS THE OVERALL IMPACT ON THE NATURAL GAS CLOTHES DRYER
9 REPLACEMENT PROGRAM BUDGET AS A RESULT OF THESE CHANGES?

10 A. Budgeted participation has been decreased from 3,000 total units per year in
11 Program Years 10 through 12 to 2,500 total units per year in Program Years 13
12 through 15, allocated among Energy Star® and non-Energy Star® units as shown
13 in Schedule 2 of Exhibit PHR-1. The resulting overall budget decrease, as shown
14 on Schedule 3 of Exhibit PHR-1, is \$165,000.

15 Q. PLEASE DESCRIBE THE PROPOSED CHANGES TO THE NEW HOMES
16 PROGRAM.

17 A. Since the budget for the New Homes Program was approved by the Commission
18 approximately three years ago, the housing market in Oklahoma has experienced
19 rapid price appreciation² which, in turn, has led to accelerating growth in single
20 family housing starts, the target market for ONG's program. Specifically, in 2019
21 the Company estimated that there would be 10,124 housing starts annually in

² "Home prices in the Oklahoma City market are expected to continue to accelerate in the coming year, according to Realtor.com. It's anticipated that home prices in the market will jump by an average 2.6% in the new year from 2021 levels. Sales, too, are expected to increase by 3.7% year-over-year." The Journal Record, December 2, 2021.

1 Oklahoma over the period from calendar year 2020 to calendar year 2022. In
2 contrast, the latest Census data available indicate that there were 12,970
3 residential building permits issued for new construction in the United States from
4 December 2019 to November 2020 in Oklahoma, a roughly 30% increase.

5 In addition, in 2019, based on prior period participation data, the Company
6 proposed participation levels of 2,000 homes per year. The Company exceeded
7 this level for the past three years and, during PY11, deferred incentive payments.
8 Accordingly, the Company is proposing to increase budget participants for the
9 2023-2025 period to 3,500 homes per year. The resulting budget increase
10 (\$1,125,000) will be partially offset by a reduction (\$66,000) in the budget for
11 inducements for the installation of dryer stubs, which were never fully subscribed
12 in any period over the last three years. The net result is an increase in the
13 proposed budget for the Company's New Homes Program of \$1,059,000.

14 Q. PLEASE DESCRIBE THE PROPOSED CHANGES TO THE BUDGET FOR THE
15 COMMERCIAL CUSTOM PROGRAM.

16 A. The Company is proposing a \$360,000 increase to the annual budget of the
17 Commercial Custom Program.

18 Q. WHY IS OKLAHOMA NATURAL PROPOSING THIS INCREASE?

19 A. The budget is being increased to reflect past over-subscription to this program, as
20 well as anticipated cost increases by the Company's vendor that provides the
21 services offered under the Commercial Custom Program umbrella.

22 Q. WHAT CHANGES IS THE COMPANY PROPOSING TO THE EM&V BUDGET?

23 A. The Company is proposing to decrease the EM&V Budget from \$600,000 in

1 Program Years 10 through 12 to \$300,000 in Program Years 13 through 15, a
2 reduction of \$300,000 per year, as shown on Schedule 3 of Exhibit PHR-1.

3 Q. WHY IS THE COMPANY PROPOSING THIS REDUCTION?

4 A. For two reasons. First, the Company has never spent the full EM&V budget in any
5 of the last three program years, averaging only about \$330,000/year. Second, as
6 the Company's programs mature, they become easier to evaluate and EM&V costs
7 come down. As evidence of this, the Company spent \$364,399 on EM&V activities
8 in PY9. In PY11, this amount was reduced to \$290,311. Given that no new
9 programs are being proposed for the PY13-PY15 cycle, the Company is confident
10 that it can have a robust EM&V performed on its programs at a level not to exceed
11 \$300,000, roughly the PY11 amount.

12 Q. WHY IS THE COMPANY PROPOSING AN INCREASE OF \$61,000 IN THE
13 ANNUAL PROGRAM ADMINISTRATION BUDGET?

14 A. The proposed increase is intended to reflect assumed annual salary increases of
15 approximately 3% over the next program cycle.

16 Q. WHAT BUDGET AND PROGRAM CHANGES IS THE COMPANY PROPOSING
17 FOR ITS RESEARCH AND DEVELOPMENT ("R&D") ACTIVITIES?

18 A. The Company is proposing to increase the R&D budget from \$100,000 to \$150,000
19 to support an expansion of R&D activities.

20 Q. WHY IS OKLAHOMA NATURL PROPOSING THIS INCREASE?

21 A. Since the Commission approved the Company's original R&D Budget in 2019 in
22 its Order No. 705112 in Cause No. PUD 201900021, the Company has used R&D
23 funds to support two primary projects related to the Company's conservation and

1 energy efficiency activities. These projects relate to:

- 2 • Gas Technology Institute's Gas Heat Pump Market and Technology
3 Development Roadmap. The objective of this project is to develop a
4 technology roadmap to identify opportunities, information gaps,
5 impediments, and strategies to accelerate the commercialization and
6 market acceptance of Gas Heat Pumps (GHPs) in North America.
- 7 • A Field Evaluation of the D'MAND KONTROLS® Pump Control Technology
8 and an addendum to an existing GTI report, On-Demand Controls for
9 Central Hot Water Systems White Paper (Kerr, Sweeney 2014) so that ONG
10 could requalify the new product configuration as an EEP measure and
11 update its energy savings calculator.

12 These activities are ongoing, and the Company would like to increase
13 funding for the upcoming program cycle to include participation in the GHP
14 Collaborative that was born out of GTI's Gas Heat Pump Roadmap project.

15 In addition, during the Commission's recent reviews of the three-year
16 energy efficiency program proposals of PSO (Cause No. PUD 202100041) and
17 OG&E (Cause No. PUD 202100121), the parties discussed the potential of adding
18 conservation and energy efficiency programs that focus specifically on renters and
19 multifamily housing. For example, the Joint Stipulation and Settlement Agreement
20 in Cause No. PUD 202100121 contains the following recommendation of the
21 Stipulating Parties:

22 "E. The Stipulating Parties further request that the Commission
23 issue an order requiring OG&E study the feasibility of adding programs that

1 may extend access for renters and multifamily housing before its next
2 portfolio proposal, such as the Pay As You Save (PAYS) program in
3 Missouri or similar programs. OG&E will discuss the results of this study in
4 pre-filed testimony accompanying its application for approval of its next
5 three-year portfolio.”

6 ONG has begun a review of the referenced program and intends to use a
7 portion of the increased R&D funds to study PAYS and related programs in greater
8 detail. As a result, ONG also agrees to discuss the results of this study in pre-filed
9 testimony accompanying its application for approval of its next three-year portfolio.

10 Q. WILL THE ABOVE CHANGES AFFECT THE COST EFFECTIVENESS OF THE
11 PORTFOLIO?

12 A. Indirectly, yes, because of two requirements. First, the Commission has placed
13 additional requirements on administrative costs in §165:45-23-5(d) of its rules:

- 14 (d) A utility’s recovery of prudently incurred program costs in rates or riders shall
15 be determined by the Commission on a utility-specific basis; provided that:
16 (1) Administrative costs shall not exceed ten percent (10%) of program costs;
17 (2) All program costs should not add more than \$1.60 to the residential sector’s
18 monthly average customer bill, unless benefits and rationale for exceeding
19 cap can be proven; bill impacts on other classes of customers should be
20 reviewed and adjusted to reflect allocated Demand Program cost recovery;
21 and
22 (3) Tariffs covering rates or riders for Demand Programs shall be updated to
23 be in compliance with this subchapter or in accordance with OAC 165:45-
24 1-4(b) and (f).

25 Second, the Company has always maintained that there be sufficient
26 program benefits to support the overhead expenses associated with these
27 programs.

28 Q. CAN YOU DEMONSTRATE THAT THE PROPOSED ADMINISTRATIVE COSTS
29 DO NOT EXCEED TEN PERCENT OF PROGRAM COSTS?

1 A. Yes. This information is shown on Schedule 2 of Exhibit PHR-1 for Program Years
2 13 through 15. As can be seen there, the administrative costs are approximately
3 7.36% of total program costs for Program Years 13 through 15, well below the 10%
4 threshold.

5 Q. CAN YOU DEMONSTRATE THAT THE TOTAL PROGRAM COSTS DO NOT
6 ADD MORE THAN \$1.60 TO THE RESIDENTIAL SECTOR'S AVERAGE
7 MONTHLY BILL?

8 A. Yes. Based on historical cost allocations and the proposed cycle budget for the
9 PY13 to PY15 period of \$17,434,000, the total amount of energy efficiency costs
10 anticipated to be allocated to the residential class will be \$13,816,701. When this
11 amount is divided by 808,761 residential customers for 2021 and converted to a
12 monthly figure, the result is that the proposed program portfolio for Program Years
13 13 through 15 will add \$1.42 per month to the residential sector's monthly average
14 customer bill, well below the \$1.60 threshold.

15 Q. CAN YOU DEMONSTRATE THAT THERE ARE SUFFICIENT PROGRAM
16 BENEFITS TO SUPPORT THE OVERHEAD EXPENSES ASSOCIATED WITH
17 THESE PROGRAMS?

18 A. Yes. This determination is summarized in Schedule 2 of Exhibit PHR-2, which
19 shows program TRC benefits net of all costs of \$32,583,506, demonstrating that
20 there are enough program benefits to support all program overhead costs.

21 Q. ARE THERE ANY ADDITIONAL REQUIREMENTS SPECIFIED IN THE
22 COMMISSION'S RULES THAT NEED TO BE UPDATED AS A RESULT OF
23 THESE PROGRAM MODIFICATIONS?

1 A. Yes, the rules require additional information for the portfolio because the Company
2 is proposing a new "Demand Portfolio" for Program Years 13 through 15, as
3 defined in §165:45-23-4 of the Commission's rules.

4 Q. WHAT INFORMATION IS REQUIRED FOR THE PORTFOLIO AS A WHOLE?

5 A. Required program-specific information is detailed in §165:45-23-4 of the
6 Commission's rules. These rules require the following information:

7 §165:45-23-4(a)(1) A description of the intent of the Demand Portfolio as a whole;

8 §165:45-23-4(a)(2) A description of the intent of each Demand Program;

9 §165:45-23-4(a)(3) A description and quantification of the target market of each
10 Demand Program, differentiated by customer sectors;

11 §165:45-23-4(a)(4) A base line describing the state of the market that each
12 program is intended to address, taking into account applicable building energy
13 codes and appliance and equipment energy standards;

14 §165:45-23-4(a)(5) A description of the barriers to investment in energy efficiency
15 in the absence of each Demand Program and the ways each Demand Program
16 will reduce or eliminate these barriers;

17 §165:45-23-4(a)(6) A description of research and public input that contributed to
18 the development of the content of each Demand Program;

19 §165:45-23-4(a)(7) A report of the cost-effectiveness of each Demand Program
20 and the Demand Portfolio, including program and measure-level supporting data
21 which shall include, but not be limited to, cost-effectiveness screening assumptions
22 of gross and net energy savings, participation and/or measure unit numbers,
23 inducement levels, measure cost, and other non-inducement program costs;

24 §165:45-23-4(a)(8) A detailed description of the derivation of the energy,
25 generation, and transmission and distribution avoided costs, retail cost projections,
26 reserve margins, discount rates, and average and peak line loss assumptions used
27 in the cost-effectiveness calculations;

28 §165:45-23-4(a)(9) A description of how each Demand Program is expected to
29 change over its course to reflect expected changes in market penetration,
30 technology, and other market information, as well as lessons learned;

31 §165:45-23-4(a)(10) A plan for evaluation, measurement, and verification of
32 performance and results of the Demand Portfolio and each program, including a
33 plan for the use of deemed savings, if applicable, or the use of statistical sampling,

- 1 if applicable, or the use of metering, where appropriate; provided that costs
2 associated with the EM&V plan shall not exceed five percent (5%) of the total three-
3 year Demand Portfolio budget;
- 4 §165:45-23-4(a)(11) A plan for evaluation of the market effects of each Demand
5 Program or applicable group of programs;
- 6 §165:45-23-4(a)(12) A plan for evaluation of administration and implementation of
7 each Demand Program or applicable group of programs;
- 8 §165:45-23-4(a)(13) A plan for ending a Demand Program, if applicable;
- 9 §165:45-23-4(a)(14) A process for amending a Demand Program;
- 10 §165:45-23-4(a)(15) An annual budget for each Demand Program, providing detail
11 for program costs, and differentiating evaluation, measurement, and verification
12 costs from other program costs;
- 13 §165:45-23-4(a)(16) A report on how the Demand Portfolio is expected to affect
14 rates, sales, average bills and total revenue requirement for each customer sector;
- 15 §165:45-23-4(a)(17) A report on how the Demand Portfolio will meet savings goals
16 that may be in place at the time of filing and or that are otherwise proposed in the
17 filing;
- 18 §165:45-23-4(a)(18) An estimate of the expected savings in natural gas usage,
19 with location information about the source of savings, if savings are not expected
20 to be evenly distributed throughout the utility system;
- 21 §165:45-23-4(a)(19) A detailed explanation of the utility's request for recovery of
22 prudently incurred program costs, recoupment of lost net revenue, and any
23 additional incentives the utility proposes it requires to make the programs
24 workable;
- 25 §165:45-23-4(a)(20) Identification of the Demand Portfolio administrator, including
26 name, job title, business postal address, business electronic mail address, and
27 business telephone number; and
- 28 Demand Portfolios shall:
- 29 §165:45-23-4(b)(1) Contain Demand Programs for all customer sectors;
- 30 §165:45-23-4(b)(2) Strike a balance among procuring natural gas savings,
31 educating the public, and transforming markets for energy efficiency;
- 32 §165:45-23-4(b)(3) Include standard offers to customers and trade allies to
33 encourage simple ways to participate, where appropriate;

1 §165:45-23-4(b)(4) Contain customized opportunities for energy efficiency among
2 larger customers;

3 §165:45-23-4(b)(5) Not include programs or measures that promote fuel switching,
4 with the exception of: (a) programs or measures that promote renewable
5 technologies such as biomass-derived methane, geothermal, solar and other
6 renewable resources; or (b) in the event after notice and hearing, such programs
7 or measures are shown to promote the goals of the Commission pursuant to this
8 Subchapter and/or otherwise to be in the public interest;

9 §165:45-23-4(b)(6) Have an implementation schedule of no more than three years;

10 §165:45-23-4(b)(7) Address opportunities presented by new construction and
11 renovation;

12 §165:45-23-4(b)(8) Promote comprehensive energy efficiency in buildings; and

13 §165:45-23-4(b)(9) Address programs for low-income customers and hard-to-
14 reach customers to assure proportionate Demand Programs are deployed in these
15 customer groups despite higher barriers to energy efficiency investments.
16 Programs targeted to low-income or hard-to-reach customers may have lower
17 threshold cost-effectiveness results than other programs.

18 Demand portfolios may:

19 §165:45-23-4(c)(1) Include research and development and pilot programs that
20 would lead to effective Demand Programs or other energy end use efficiency for
21 Oklahoma so long as the total budget for such programs does not exceed five
22 percent of the total budget for Demand Programs and the Commission finds the
23 cost-effectiveness for the Demand Portfolio remains sufficient;

24 §165:45-23-4(c)(2) Encourage utility cooperation in state, regional and national
25 programs that have the potential to save natural gas in Oklahoma;

26 §165:45-23-4(c)(3) Encourage utility cooperation in state, regional and national
27 programs to take advantage of economies of scale, provide consistent mass media
28 messages, or otherwise improve program administration or customer acceptance;
29 and

30 §165:45-23-4(c)(4) Encourage utility cooperation in state, regional and national
31 efforts to accelerate the development and improve the enforcement of building
32 energy codes and product efficiency standards.

33 Q. WHAT IS THE INTENT OF THE COMPANY'S PROPOSED DEMAND
34 PORTFOLIO AS A WHOLE?

35 A. As stated in §165:45-23-2(a) of the Commission's Rules, the goals of demand

1 programs are to minimize the long-term cost of utility service, to encourage and
2 enable utility customers to make the most efficient use of energy, and to
3 discourage the inefficient and wasteful use of energy, and it is the intent of
4 Oklahoma Natural's demand portfolio to meet this goal. As described in greater
5 detail below, it does so by offering conservation and energy efficiency programs to
6 all customer sectors. It also strikes a balance among procuring natural gas
7 savings, educating the public, and transforming markets for energy efficiency,
8 includes standard offers to customers and trade allies to encourage simple ways
9 to participate and contains customized opportunities for energy efficiency among
10 larger customers. This collection of conservation and energy efficiency programs
11 addresses opportunities presented by new construction and renovation, promotes
12 comprehensive energy efficiency in buildings and addresses programs for low-
13 income customers and hard-to-reach customers to assure that proportionate
14 energy efficiency programs are deployed in these customer groups despite higher
15 barriers to energy efficiency investments.

16 Q. PLEASE DESCRIBE THE INTENT OF THE COMPANY'S INDIVIDUAL DEMAND
17 PROGRAMS.

18 A. The Company's portfolio of demand programs for Program Years 13 through 15 is
19 composed of nine major programs that the Company is proposing to implement.

20 These programs, and the intent of each, are as follows:

- 21 1. An Energy Efficiency Education Program. The intent of Oklahoma Natural's
22 Energy Efficiency Education Program is to raise the general awareness of
23 the importance of energy conservation among Oklahoma Natural's
24 customers, and to inform these customers of the specific program offerings
25 that they can take advantage of to conserve natural gas and lower their
26 energy bills.

- 1 2. A Low-Income Energy Efficiency Assistance Program. The intent of
2 Oklahoma Natural's Low-Income Energy Efficiency Assistance Program is
3 to reach low-income and hard-to-reach customers by providing
4 weatherization assistance at no cost to low-income customers.

- 5 3. A Water Heater Replacement Program. The intent of Oklahoma Natural's
6 Water Heater Program is to encourage Oklahoma Natural customers,
7 contractors, and builders to install the most efficient equipment when
8 replacing an existing water heater or deciding about the efficiency of the
9 water heater installed in a new home.

- 10 4. A Water Conservation Program. The intent of Oklahoma Natural's Water
11 Conservation Program is to encourage Oklahoma Natural customers to
12 reduce water usage, thereby reducing natural gas usage for water heating
13 purposes. It does so through the distribution of free water savings kits.

- 14 5. A Heating System Replacement Program. The intent of Oklahoma
15 Natural's Heating System Replacement Program is to encourage Oklahoma
16 Natural customers, contractors, and builders to install the most efficient
17 equipment when replacing an existing furnace or deciding about the
18 efficiency of the space heating device installed in a new home.

- 19 6. A Clothes Dryer Replacement Program. The intent of Oklahoma Natural's
20 Clothes Dryer Replacement Program is to encourage Oklahoma Natural
21 customers, contractors, and builders to install the most efficient equipment
22 when replacing an existing clothes dryer or deciding about the efficiency of
23 the clothes dryer installed in a new home.

- 24 7. A Range Replacement Program. The intent of Oklahoma Natural's Range
25 Replacement Program is to encourage Oklahoma Natural customers,
26 contractors, and builders to install the most efficient equipment when
27 replacing an existing range or deciding about the efficiency of the range
28 installed in a new home.

- 29 8. A New Homes Program. The intent of Oklahoma Natural's New Homes
30 Program is to encourage home builders in Oklahoma Natural's service
31 territory to build new homes consistent with the guidelines for energy
32 efficiency set by the 2009 International Energy Conservation Code (IECC).

- 33 9. A Commercial Custom Program. The Commercial Custom Program is
34 intended to reduce natural gas energy usage by providing an inducement
35 for the installation of cost-effective energy efficiency measures in the
36 businesses of larger commercial customers (determined both prescriptively
37 and on a customer-specific basis).

1 Q. IS THERE OTHER INFORMATION REQUESTED IN THE COMMISSION'S
2 RULES THAT HAS BEEN PREVIOUSLY FILED WITH AND APPROVED BY THE
3 COMMISSION AND THAT REMAINS UNCHANGED?

4 A. Yes, the following information has been previously filed with and approved by the
5 Commission and remains unchanged:

6 §165:45-23-4(a)(3) A description and quantification of the target market of each
7 Demand Program, differentiated by customer sectors;

8 §165:45-23-4(a)(4) A base line describing the state of the market that each
9 program is intended to address, taking into account applicable building energy
10 codes and appliance and equipment energy standards;

11 §165:45-23-4(a)(5) A description of the barriers to investment in energy efficiency
12 in the absence of each Demand Program and the ways each Demand Program
13 will reduce or eliminate these barriers;

14 §165:45-23-4(a)(6) A description of research and public input that contributed to
15 the development of the content of each Demand Program;

16 §165:45-23-4(a)(8) A detailed description of the derivation of the energy,
17 generation, and transmission and distribution avoided costs, retail cost projections,
18 reserve margins, discount rates, and average and peak line loss assumptions used
19 in the cost-effectiveness calculations;

20 §165:45-23-4(a)(9) A description of how each Demand Program is expected to
21 change over its course to reflect expected changes in market penetration,
22 technology, and other market information, as well as lessons learned;

23 §165:45-23-4(a)(10) A plan for evaluation, measurement, and verification of
24 performance and results of the Demand Portfolio and each program, including a
25 plan for the use of deemed savings, if applicable, or the use of statistical sampling,
26 if applicable, or the use of metering, where appropriate; provided that costs
27 associated with the EM&V plan shall not exceed five percent (5%) of the total three-
28 year Demand Portfolio budget;

29 §165:45-23-4(a)(11) A plan for evaluation of the market effects of each Demand
30 Program or applicable group of programs;

31 §165:45-23-4(a)(13) A plan for ending a Demand Program, if applicable; and

32 §165:45-23-4(a)(14) A process for amending a Demand Program;

33 Q. ARE THESE DEMAND PROGRAMS COST EFFECTIVE?

1 A. Yes, except for the Energy Efficiency Education Program, to which the Company
2 ascribes no energy savings. This is shown in detail in the three schedules of
3 Exhibit PHR-2. Schedule 1 of Exhibit PHR-2 contains measure-level supporting
4 data, which includes cost-effectiveness screening assumptions of the measure life,
5 the measure cost, inducement levels, measure gross savings and the assumed
6 net to gross ratio by measure. Schedule 2 of Exhibit PHR-2 contains measure
7 level benefit/cost results for the Company's proposed Demand Programs.
8 Schedule 3 of Exhibit PHR-2 contains a summary of the benefit/cost results for the
9 Company's proposed Demand Portfolio by program.

10 The Schedule 1 assumptions upon which the benefit/cost evaluations are
11 based are taken directly from the Company's latest (PY11) EM&V results.

12 Q. PLEASE DESCRIBE THE COMPANY'S PLAN FOR THE EVALUATION OF THE
13 ADMINISTRATION AND EVALUATION OF EACH DEMAND PROGRAM.

14 A. Evaluation of administration and implementation of each Demand Program is
15 commonly known as a Process Evaluation. The Company performs such an
16 evaluation each year and it is filed with its annual EM&V Report. The latest (2021)
17 EM&V Report has been previously filed as Exhibit CMS-4 attached to Company
18 Witness Cory Slaughter's testimony within the Company's annual PBRC filing in
19 Cause No. PUD 202200023. This exhibit explains in detail the Process Evaluation
20 applied to the Company's administration and implementation of each Demand
21 Program.

22 Q. WHAT IS THE ANNUAL BUDGET FOR EACH DEMAND PROGRAM?

1 A. The annual budget for each Demand Program is provided in Schedule 2 of Exhibit
2 PHR-1. As required, this Schedule provides all details for program costs. It also
3 differentiates evaluation, measurement, and verification costs from other program
4 costs.

5 Q. PLEASE DESCRIBE HOW OKLAHOMA NATURAL'S DEMAND PORTFOLIO IS
6 EXPECTED TO AFFECT RATES, SALES, AVERAGE BILLS AND TOTAL
7 REVENUE REQUIREMENT FOR EACH CUSTOMER SECTOR.

8 A. Schedules 2 and 3 of Exhibit PHR-2 provide the requested information. This
9 schedule summarizes the application of the cost-effectiveness tests that the
10 Commission has prescribed in its rules to all measures and programs in the
11 Company's Demand Portfolio. The rate impact of these programs can be obtained
12 from the Rate Impact Measure (RIM) Test plus overhead costs and is the
13 combined effect of lost margins and the program costs that must be recovered as
14 a cost of providing natural gas service. The impact on sales levels is simply the
15 estimated change in natural gas usage because of the programs. Finally, the total
16 revenue requirement effect is measured by the Program Administrator Cost Test
17 plus overhead costs, which nets the program costs against savings in natural gas
18 costs.

19 Q. PLEASE DESCRIBE HOW THE DEMAND PORTFOLIO WILL MEET SAVINGS
20 GOALS THAT MAY BE IN PLACE AT THE TIME OF FILING AND/OR THAT ARE
21 OTHERWISE PROPOSED IN THE FILING.

22 A. As of the date of this filing, the Commission has no savings goals in place.
23 However, the Company's portfolio of programs is intended to achieve savings in

1 natural gas usage that are identified by program and in total in Schedule 3 of
2 Exhibit PHR-2. Savings are expected to be evenly distributed throughout the utility
3 system.

4 Q. HOW DOES OKLAHOMA NATURAL PROPOSE TO RECOVER THE COSTS OF
5 THESE PROGRAMS?

6 A. All program costs will be recovered as prescribed in Section 8 of Tariff 1201, the
7 Company's Performance Based Rate Change (PBRC) Plan Tariff, approved by the
8 Commission in Cause No. PUD 202100063.

9 Q. WHO IS THE COMPANY'S DEMAND PORTFOLIO ADMINISTRATOR?

10 A. Ms. Crystal LeFlore is the Company's demand portfolio administrator. Her job title
11 is Energy Efficiency Supervisor. Her contact information is as follows:

12 Business Postal Address: Oklahoma Natural Gas
13 Energy-Efficiency Program
14 P.O. Box 401
15 Oklahoma City, OK 73101-0401

16 Business Electronic Mail Address: Crystal.LeFlore@onegas.com

17 Business Telephone Number: 405.551.6609

18 Q. DOES THE COMPANY'S DEMAND PORTFOLIO CONTAIN PROGRAMS FOR
19 ALL CUSTOMER SECTORS?

20 A. Yes. As shown on Schedule 3 of Exhibit PHR-2, the Company has proposed
21 programs for all customer sectors. These include residential, small commercial
22 and large commercial sales customers; and small transport customers, as well as
23 certain groups of customers within these larger groupings such as low-income

1 customers, customers who use natural gas for specific end-uses, new and existing
2 customers and customers who are replacing appliances or simply wish to improve
3 the efficiency with which existing appliances are operated.

4 Q. PLEASE DESCRIBE HOW THE COMPANY'S DEMAND PORTFOLIO STRIKES
5 A BALANCE AMONG PROCURING NATURAL GAS SAVINGS, EDUCATING
6 THE PUBLIC, AND TRANSFORMING MARKETS FOR ENERGY EFFICIENCY.

7 A. The Low-Income Energy Efficiency Assistance Program, the Energy Efficiency
8 Rebates Program and its various components, the New Homes Program and the
9 Commercial Custom Program are all designed to save natural gas. The Energy
10 Efficiency Education Program is offered as a program to educate the public about
11 energy efficiency generally and the specific programs offered by the Company.
12 However, other programs should also serve this function. This demand portfolio
13 is also designed to transform markets for energy efficiency and as discussed more
14 fully in its annual EM&V Report, includes a plan to measure market transformation
15 and modify program offerings as this transformation takes place.

16 Q. DOES THE COMPANY'S DEMAND PORTFOLIO INCLUDE STANDARD
17 OFFERS TO CUSTOMERS AND TRADE ALLIES TO ENCOURAGE SIMPLE
18 WAYS TO PARTICIPATE, WHERE APPROPRIATE?

19 A. Yes. All the Company's programs involve standard offers to customers and trade
20 allies to encourage simple ways to participate.

21 Q. DOES THE COMPANY'S DEMAND PORTFOLIO CONTAIN CUSTOMIZED
22 OPPORTUNITIES FOR ENERGY EFFICIENCY AMONG LARGER
23 CUSTOMERS?

1 A. Yes. The Company offers a Commercial Custom Program for its larger customers.
2 This program satisfies the Commission's requirement to offer customized
3 opportunities for energy efficiency among larger customers.

4 Q. DOES THE COMPANY'S DEMAND PORTFOLIO INCLUDE PROGRAMS OR
5 MEASURES THAT PROMOTE FUEL SWITCHING?

6 A. Yes, there are four program components that could be considered to promote fuel
7 switching: the Electric to Gas Water Heater component, the Electric to Gas Space
8 Heating component, and the Clothes Dryer and Range components. However, the
9 Company believes that this application demonstrates that these programs or
10 measures promote the goals of the Commission and/or otherwise to be in the
11 public interest. Specifically, the goals of the Commission are defined in §165:45-
12 23-2 of the Commission's rules. That section lists the goals of the Commission to
13 be:

14 (a) The goals of Demand Programs are to minimize the long-term cost of utility
15 service, to encourage and enable utility customers to make the most
16 efficient use of energy, and to discourage the inefficient and wasteful use of
17 energy.

18 (b) The Commission shall set specific savings goals for each utility to achieve
19 Net Source Energy Usage Savings without adversely affecting customer
20 comfort or state economic activity, based on market potential studies, base
21 line studies, gas supply portfolios, risk management plans, or other
22 evidence presented as part of the hearing process for approval of a utility's
23 Demand Programs.

24 With respect to the first goal, Oklahoma Natural believes that its proposals
25 clearly meet the requirement to minimize the long-term cost of utility service. The
26 Commission has adopted four cost-effectiveness tests to measure the long-term
27 cost of energy efficiency programs relative to the long-term cost of utility service
28 from different perspectives. The Participant Test measures the long-term cost of

1 energy efficiency programs relative to the long-term cost of utility service from the
2 perspective of a customer participating in the energy efficiency program. As is
3 shown in Schedule 2 of Exhibit PHR-2, the net participant benefits of the fuel
4 switching components of the Company's proposals dwarf the net participant
5 benefits of the single fuel efficiency components.

6 The Total Resource Cost Test and the related Societal Cost Test measure
7 the long-term cost of energy efficiency programs relative to the long-term cost of
8 utility service from the perspective of society. In this perspective, the net participant
9 benefits of the fuel switching components dwarf the net participant benefits of the
10 other program components and make up a substantial portion of the total program
11 TRC benefits.

12 Finally, the Program Administrator Test measures the long-term cost of
13 energy efficiency programs relative to the long-term cost of utility service from the
14 perspective of the Program Administrator (in this case, Oklahoma Natural). The
15 California Standard Practice Manual lists as a strength of this test that it defines
16 costs similarly to supply-side projects. Thus, this test is perhaps the best one to
17 consider when evaluating the long-term cost of utility service because it looks at
18 the cost of an energy efficiency investment as a resource option. In this
19 perspective, the net program administrator benefits of this component also dwarf
20 the net program administrator benefits of the other program components and make
21 up a sizable portion of the total program administrator benefits.

1 With respect to the second goal, Oklahoma Natural believes that its fuel
2 switching proposals better meet whatever savings requirements the Commission
3 may decide to impose in lieu of traditional energy efficiency programs.

4 For these reasons, the Company respectfully requests that the Commission
5 continue to approve the fuel switching components of its programs because they
6 will promote the goals of the Commission pursuant to this Subchapter and promote
7 Oklahoma's economy generally and its oil and gas industry specifically.

8 Q. WHAT IS THE IMPLEMENTATION SCHEDULE FOR THESE PROGRAMS?

9 A. The Company's conservation and energy efficiency programs are proposed to be
10 implemented over the three-year period of 2023 through 2025.

11 Q. PLEASE DESCRIBE HOW THE COMPANY'S DEMAND PORTFOLIO
12 ADDRESSES OPPORTUNITIES PRESENTED BY NEW CONSTRUCTION AND
13 RENOVATION.

14 A. The Company's New Homes Program is intended specifically to address
15 opportunities presented by new construction. The Company's Energy Efficiency
16 Rebate Programs and their various components are intended specifically to
17 address opportunities presented by renovation. Indirectly, the Energy Efficiency
18 Education Program is offered as a program to educate the public about energy
19 efficiency generally and specific programs offered by the Company and should
20 address opportunities presented in both markets.

21 Q. DO THE COMPANY'S PROGRAMS PROMOTE COMPREHENSIVE ENERGY
22 EFFICIENCY IN BUILDINGS?

1 A. Yes, the Demand Portfolio proposed by Oklahoma Natural is designed to promote
2 energy efficiency comprehensively. That is, it focuses on all major natural gas
3 using appliances (space heating, water heating, clothes drying and cooking) in a
4 building. It focuses on new construction and existing construction. It focuses on
5 efficiency improvements when appliances are being replaced and when those
6 appliances are not slated for replacement.

7 Q. DOES THE COMPANY'S PROPOSAL ADDRESS PROGRAMS FOR LOW-
8 INCOME CUSTOMERS AND HARD-TO-REACH CUSTOMERS?

9 A. The Company's Low-Income Energy Efficiency Assistance Program specifically
10 addresses conservation and energy efficiency for low-income and hard-to-reach
11 customers. It is worth noting here that, because Oklahoma Natural's program
12 leverages other funding sources, the program is significantly cost-effective and
13 requires no waiver or lowering of the cost-effectiveness threshold that the
14 Commission has established for conservation and energy efficiency programs.

15 Q. DOES THE COMPANY'S PROPOSAL INCLUDE RESEARCH AND
16 DEVELOPMENT THAT SHOULD LEAD TO EFFECTIVE ENERGY EFFICIENCY
17 PROGRAMS OR OTHER ENERGY END USE EFFICIENCY FOR OKLAHOMA?

18 A. Yes. As described above, Oklahoma Natural has proposed to continue with the
19 R&D component of its Demand Portfolio, originally approved by the Commission
20 for Program Years 10 through 12. This component provides the Company with
21 information on any additional energy efficiency opportunities that it should explore
22 and identifies state, regional and national programs that have the potential to save
23 natural gas in Oklahoma through involvement with GTI. This involvement with GTI

1 also allows Oklahoma Natural to cooperate in state, regional and national efforts
2 to accelerate the development and improve the enforcement of building energy
3 codes and product efficiency standards.

4 Q. DOES THE COMPANY'S PROPOSAL ALLOW UTILITY COOPERATION IN
5 STATE, REGIONAL AND NATIONAL PROGRAMS THAT HAVE THE
6 POTENTIAL TO SAVE NATURAL GAS IN OKLAHOMA?

7 A. Yes. In addition to participation in multi-utility conservation and energy efficiency
8 programs sponsored by GTI through its R&D efforts, the Company is already
9 participating with electric utilities that serve in Oklahoma Natural's service territory
10 through its Low-Income Energy Efficiency Assistance Program and New Homes
11 Program offerings.

12 Q. DOES THAT COMPLETE YOUR DIRECT TESTIMONY AT THIS TIME?

13 A. Yes, it does.

The Scale of the Company's Programs as a Part of the Demand Portfolio as Approved for Program Years 10-12

Program	Cost per Participant	Universe	Projected Participation Rate	Projected Participants	Projected Total Cost	Percent of Total Cost
Energy Efficiency Education Program	-	849,504	-	-	\$ 1,950,000	12.28%
Low Income Energy Efficiency Assistance Program	\$ 875	18,076	4.43%	800	\$ 800,000	5.04%
Energy Efficiency Rebates						
Water Heater Replacement Program						
Tank - Gas to Gas - 67% Efficient	\$ 50	77,228	0.00%	0	\$ -	0.00%
Tankless - Gas to Gas	\$ 300	42,475	2.94%	1,250	\$ 375,000	2.36%
Condensing - Gas to Gas	\$ 300	56,634	0.04%	20	\$ 6,000	0.04%
Electric to Gas	\$ 900	-	-	200	\$ 180,000	1.13%
Water Conservation Program	\$ 12	84,950	7.80%	6,623	\$ 80,000	0.50%
Heating System Replacement Program						
78% to 95%+ Efficient	\$ 600	42,475	16.48%	7,000	\$ 4,200,000	26.44%
Electric Furnace to Gas Standard Efficiency	\$ 2,000	-	-	300	\$ 600,000	3.78%
Electric Furnace to Gas High Efficiency	\$ 2,600	-	-	300	\$ 780,000	4.91%
Natural Gas Clothes Dryer Replacement Program						
Standard Efficiency Unit	\$ 400	60,679	4.12%	2,500	\$ 1,000,000	6.30%
Energy Star® Unit	\$ 450	60,679	0.82%	500	\$ 225,000	1.42%
Event Promotion	\$ 100	-	-	500	\$ 50,000	0.31%
Natural Gas Range Replacement Program	\$ 100	56,634	5.30%	3,000	\$ 300,000	1.89%
New Homes Program						
2009 IBC Upgrades	\$ 750	10,124	19.76%	2,000	\$ 1,500,000	9.44%
Dryer Stub	\$ 100	10,124	16.40%	1,660	\$ 166,000	1.05%
Commercial Custom Program	-	-	-	-	\$ 2,200,000	13.85%
EM&V					\$ 600,000	3.78%
Subtotal Energy Efficiency					\$ 15,012,000	94.51%
Program Administration					\$ 634,000	3.99%
Program Expenses and Travel					\$ 66,000	0.42%
Program Consultation					\$ 72,000	0.45%
R&D					\$ 100,000	0.63%
Total					\$ 15,884,000	100.00%

The Scale of the Company's Programs as a Part of the Demand Portfolio as Proposed for Program Years 13-15

Program	Cost per Participant	Universe	Projected Participation Rate	Projected Participants	Projected Total Cost	Percent of Total Cost
Energy Efficiency Education Program	-	886,415	-	-	\$ 1,950,000	11.19%
Low Income Energy Efficiency Assistance Program	\$ 875	13,838	7.23%	1,000	\$ 1,000,000	5.74%
Energy Efficiency Rebates						
Water Heater Replacement Program						
Tankless - Gas to Gas	\$ 300	44,321	5.64%	2,500	\$ 750,000	4.30%
Condensing - Gas to Gas	\$ 300	59,094	0.03%	20	\$ 6,000	0.03%
Electric to Gas	\$ 900	-	-	200	\$ 180,000	1.03%
Water Conservation Program	\$ 12	88,642	7.47%	6,623	\$ 80,000	0.46%
Heating System Replacement Program						
78% to 95%+ Efficient	\$ 600	44,321	16.92%	7,500	\$ 4,500,000	25.81%
Electric Furnace to Gas Standard Efficiency	\$ 2,000	-	-	300	\$ 600,000	3.44%
Electric Furnace to Gas High Efficiency	\$ 2,600	-	-	150	\$ 390,000	2.24%
Natural Gas Clothes Dryer Replacement Program						
Standard Efficiency Unit	\$ 400	63,315	2.05%	1,300	\$ 520,000	2.98%
Energy Star® Unit	\$ 450	63,315	1.90%	1,200	\$ 540,000	3.10%
Event Promotion	\$ 100	-	-	500	\$ 50,000	0.29%
Natural Gas Range Replacement Program	\$ 100	59,094	5.08%	3,000	\$ 300,000	1.72%
New Homes Program						
2009 IBC Upgrades	\$ 750	12,970	26.99%	3,500	\$ 2,625,000	15.06%
Dryer Stub	\$ 100	12,970	7.71%	1,000	\$ 100,000	0.57%
Commercial Custom Program	-	-	-	-	\$ 2,560,000	14.68%
EM&V					\$ 300,000	1.72%
Subtotal Energy Efficiency					\$ 16,451,000	94.36%
Program Administration					\$ 695,000	3.99%
Program Expenses and Travel					\$ 66,000	0.38%
Program Consultation					\$ 72,000	0.41%
R&D					\$ 150,000	0.86%
Total					\$ 17,434,000	100.00%

Comparison of Proposed Program Year 13 through Program Year 15 Budget to Current Budget

Program	Years 10 - 12	Years 13 - 15	Change From Years
	Projected Total Cost	Projected Total Cost	10-12 to Years 13-15
Energy Efficiency Education Program	\$ 1,950,000	\$ 1,950,000	\$ -
Low Income Energy Efficiency Assistance Program	\$ 800,000	\$ 1,000,000	\$ 200,000
Energy Efficiency Rebates			
Water Heater Replacement Program			
Tankless - Gas to Gas	\$ 375,000	\$ 750,000	\$ 375,000
Condensing - Gas to Gas	\$ 6,000	\$ 6,000	\$ -
Electric to Gas	\$ 180,000	\$ 180,000	\$ -
Water Conservation Program	\$ 80,000	\$ 80,000	\$ -
Heating System Replacement Program			
78% to 95%+ Efficient	\$ 4,200,000	\$ 4,500,000	\$ 300,000
Electric Furnace to Gas Standard Efficiency	\$ 600,000	\$ 600,000	\$ -
Electric Furnace to Gas High Efficiency	\$ 780,000	\$ 390,000	\$ (390,000)
Natural Gas Clothes Dryer Replacement Program			
Standard Efficiency Unit	\$ 1,000,000	\$ 520,000	\$ (480,000)
Energy Star® Unit	\$ 225,000	\$ 540,000	\$ 315,000
Event Promotion	\$ 50,000	\$ 50,000	\$ -
Natural Gas Range Replacement Program	\$ 300,000	\$ 300,000	\$ -
New Homes Program			
2009 IBC Upgrades	\$ 1,500,000	\$ 2,625,000	\$ 1,125,000
Dryer Stub	\$ 166,000	\$ 100,000	\$ (66,000)
Commercial Custom Program	\$ 2,200,000	\$ 2,560,000	\$ 360,000
EM&V	\$ 600,000	\$ 300,000	\$ (300,000)
Subtotal Energy Efficiency	\$ 15,012,000	\$ 16,451,000	\$ 1,439,000
Program Administration	\$ 634,000	\$ 695,000	\$ 61,000
Program Expenses and Travel	\$ 66,000	\$ 66,000	\$ -
Program Consultation	\$ 72,000	\$ 72,000	\$ -
R&D	\$ 100,000	\$ 150,000	\$ 50,000
Total	\$ 15,884,000	\$ 17,434,000	\$ 1,550,000

OKLAHOMA NATURAL GAS
 SUMMARY OF MEASURE LEVEL ASSUMPTIONS

Measure Name	Measure Life (Years)	Measure Cost (\$)	Avoided Equipment Costs (\$)	Incentive (\$)	Net Measure Savings (Dth)	Water Savings	kWh Savings	kW Savings	Net to Gross Ratio	Participation
Clothes Dryer	14	\$ 121.71	\$ -	\$ 399.57	24.94	-	-	-	0.60	2,500
New Home	15	\$ 1,698.14	\$ -	\$ 750.00	226.38	-	-	-	0.97	3,500
Range	15	\$ -	\$ -	\$ 100.07	1.45	-	-	-	0.73	3,000
Air Sealing	11	\$ 308.36	\$ -	\$ 264.43	103.82	-	-	-	1.00	968
Attic Insulation	20	\$ 454.41	\$ -	\$ 231.26	90.80	-	-	-	1.00	575
Duct Insulation	18	\$ 331.73	\$ -	\$ 514.21	201.89	-	-	-	1.00	936
Whole Kit	10	\$ 10.94	\$ -	\$ 10.94	16.38	2,481.97	-	-	0.91	6,914
95% Eff Heater	20	\$ 222.60	\$ -	\$ 372.35	43.16	-	-	-	0.41	7,500
Electric to Gas 95+ Heater	20	\$ 472.14	\$ -	\$ 5,155.80	597.55	-	-	-	0.41	150
Electric to Gas Heater	20	\$ 249.54	\$ -	\$ 4,880.05	565.60	-	-	-	0.41	300
Condensing Water Heater	11	\$ 251.99	\$ -	\$ 676.06	47.69	-	-	-	0.37	20
Electric to Gas Water Heater	11	\$ 36.79	\$ -	\$ 1,122.04	79.15	-	-	-	0.37	109
Tankless Water Heater	20	\$ 106.82	\$ -	\$ 229.90	16.22	-	-	-	0.37	2,500
Electric to Gas Tankless Water Heater	20	\$ 146.93	\$ -	\$ 1,049.87	74.06	-	-	-	0.37	91
Commercial Air Sealing	11	\$ 113.28	\$ -	\$ 39.01	52.19	-	118.93	0.09	0.97	487
Boiler	20	\$ 2,567.29	\$ -	\$ 977.54	1,307.86	-	-	-	0.97	1
Boiler Replacement	20	\$ 3,863.79	\$ -	\$ 1,614.15	2,159.60	-	-	-	0.97	8
Boiler Tune-Up	2	\$ 375.51	\$ -	\$ 192.20	257.15	-	-	-	0.97	1
Combination Oven	8	\$ 1,329.69	\$ -	\$ 680.58	910.56	-	-	-	0.97	2
Convection Oven	8	\$ 454.11	\$ -	\$ 178.91	239.37	-	-	-	0.97	1
Destratification Fan	10	\$ 1,293.48	\$ -	\$ 492.51	658.94	-	-	-	0.97	1
Duct Sealing	18	\$ 252.72	\$ -	\$ 94.75	126.77	-	531.21	0.32	0.97	472
Fan Destratification	10	\$ 699.83	\$ -	\$ 266.47	356.52	-	-	-	0.97	10
Fryer	12	\$ 1,841.33	\$ -	\$ 542.78	726.19	-	-	-	0.97	23
Gas Griddle - 36"	12	\$ 678.38	\$ -	\$ 1,161.04	1,553.38	-	-	-	0.97	1
Gas Griddle - 48"	12	\$ 678.38	\$ -	\$ 1,548.06	2,071.17	-	-	-	0.97	2
HE Furnace Replacement	15	\$ 884.71	\$ -	\$ 190.98	255.51	-	-	-	0.97	31
Pipe Insulation	15	\$ 13.46	\$ -	\$ 5.12	6.86	-	-	-	0.97	2,281
Radiant Heaters	20	\$ 740.85	\$ -	\$ 332.58	444.97	-	-	-	0.97	8
Steam & HW Leaks	5	\$ 388.68	\$ -	\$ 148.00	198.00	-	-	-	0.97	7
Steam Leak Repair	5	\$ 406.39	\$ -	\$ 219.67	293.90	1,453.08	-	-	0.97	15
Steam Trap Replacement	5	\$ 850.46	\$ -	\$ 405.51	542.53	1,453.08	-	-	0.97	128
Strategic Energy Management	15	\$ 1,401.01	\$ -	\$ 2,688.23	3,596.62	-	-	-	0.97	14
Commercial Tankless Water Heater	20	\$ 463.86	\$ -	\$ 378.01	505.75	-	-	-	0.97	1
Vent Hood	15	\$ 1,027.46	\$ -	\$ 525.89	703.60	-	-	-	0.97	1
Waste Heat Recovery	20	\$ 17,044.37	\$ -	\$ 9,345.88	12,504.00	-	-	-	0.97	5
Overhead Door Weatherstripping:8790	11	\$ 30.00	\$ -	\$ 30.39	40.66	-	20.00	0.01	1.00	36,981
Weather Stripping - Field Tool:5466	11	\$ 8.00	\$ -	\$ 10.13	13.56	-	-	-	1.00	4,482

OKLAHOMA NATURAL GAS
SUMMARY OF MEASURE LEVEL BENEFIT/COST EVALUATIONS

Program	PARTICIPANT TEST				TOTAL RESOURCE COST TEST				SOCIETAL COST TEST			
	BENEFITS	COST	NET BENEFIT	BENEFIT/COST	BENEFITS	COST	NET BENEFIT	BENEFIT/COST	BENEFITS	COST	NET BENEFIT	BENEFIT/COST
Commercial Air Sealing	\$ 437,685	\$ 132,671	\$ 305,013.82	3.30	\$ 855,462	\$ 166,040	\$ 689,422.08	5.15	\$ 852,664	\$ 166,040	\$ 686,624.12	5.14
Boiler	\$ 22,967	\$ 6,174	\$ 16,792.46	3.72	\$ 36,735	\$ 7,891	\$ 28,843.16	4.66	\$ 74,778	\$ 7,891	\$ 66,886.43	9.48
Boiler Replacement	\$ 303,389	\$ 74,339	\$ 229,050.31	4.08	\$ 485,260	\$ 97,021	\$ 388,239.02	5.00	\$ 987,809	\$ 97,021	\$ 890,787.69	10.18
Boiler Tune-Up	\$ 1,066	\$ 903	\$ 163.25	1.18	\$ 970	\$ 1,241	\$ (271.05)	0.78	\$ 1,648	\$ 1,241	\$ 407.66	1.33
Combination Oven	\$ 18,210	\$ 6,396	\$ 11,814.31	2.85	\$ 25,090	\$ 8,787	\$ 16,303.53	2.86	\$ 45,284	\$ 8,787	\$ 36,497.09	5.15
Convection Oven	\$ 2,394	\$ 1,092	\$ 1,301.44	2.19	\$ 3,298	\$ 1,406	\$ 1,891.51	2.34	\$ 5,952	\$ 1,406	\$ 4,545.80	4.23
Destratification Fan	\$ 7,666	\$ 3,111	\$ 4,554.85	2.46	\$ 10,980	\$ 3,976	\$ 7,004.05	2.76	\$ 20,225	\$ 3,976	\$ 16,249.39	5.09
Duct Sealing	\$ 1,718,383	\$ 286,872	\$ 1,431,511.43	5.99	\$ 3,949,650	\$ 365,430	\$ 3,584,220.38	10.81	\$ 3,126,193	\$ 365,430	\$ 2,760,763.33	8.55
Fan Destratification	\$ 41,475	\$ 16,831	\$ 24,643.75	2.46	\$ 59,406	\$ 21,511	\$ 37,894.94	2.76	\$ 109,428	\$ 21,511	\$ 87,916.27	5.09
Fryer	\$ 219,101	\$ 101,853	\$ 117,248.02	2.15	\$ 323,050	\$ 123,781	\$ 199,268.79	2.61	\$ 607,245	\$ 123,781	\$ 483,463.82	4.91
Gas Griddle - 36"	\$ 20,377	\$ 1,632	\$ 18,745.54	12.49	\$ 30,045	\$ 3,671	\$ 26,373.72	8.18	\$ 56,476	\$ 3,671	\$ 52,804.74	15.38
Gas Griddle - 48"	\$ 54,339	\$ 3,263	\$ 51,075.77	16.65	\$ 80,119	\$ 8,701	\$ 71,417.60	9.21	\$ 150,602	\$ 8,701	\$ 141,900.31	17.31
HE Furnace Replacement	\$ 119,146	\$ 65,960	\$ 53,186.73	1.81	\$ 181,960	\$ 76,359	\$ 105,601.01	2.38	\$ 352,551	\$ 76,359	\$ 276,192.82	4.62
Pipe Insulation	\$ 235,204	\$ 73,819	\$ 161,385.22	3.19	\$ 359,203	\$ 94,348	\$ 264,855.27	3.81	\$ 695,965	\$ 94,348	\$ 601,617.35	7.38
Radiant Heaters	\$ 62,511	\$ 14,254	\$ 48,256.91	4.39	\$ 99,984	\$ 18,927	\$ 81,056.35	5.28	\$ 203,529	\$ 18,927	\$ 184,602.10	10.75
Steam & HW Leaks	\$ 10,014	\$ 6,543	\$ 3,471.06	1.53	\$ 12,494	\$ 8,363	\$ 4,130.74	1.49	\$ 21,888	\$ 8,363	\$ 13,524.81	2.62
Steam Leak Repair	\$ 32,841	\$ 14,661	\$ 18,179.93	2.24	\$ 39,877	\$ 20,448	\$ 19,428.19	1.95	\$ 69,618	\$ 20,448	\$ 49,169.26	3.40
Steam Trap Replacement	\$ 510,182	\$ 261,804	\$ 248,378.80	1.95	\$ 627,152	\$ 352,975	\$ 274,177.53	1.78	\$ 1,096,642	\$ 352,975	\$ 743,667.13	3.11
Strategic Energy Management	\$ 622,416	\$ 38,765	\$ 583,651.22	16.06	\$ 950,551	\$ 93,090	\$ 857,461.70	10.21	\$ 1,841,717	\$ 93,090	\$ 1,748,627.59	19.78
Commercial Tankless Water Heater	\$ 8,881	\$ 1,116	\$ 7,765.69	7.96	\$ 14,205	\$ 1,780	\$ 12,425.70	7.98	\$ 28,917	\$ 1,780	\$ 27,137.06	16.25
Vent Hood	\$ 10,583	\$ 2,471	\$ 8,112.44	4.28	\$ 16,163	\$ 3,395	\$ 12,768.27	4.76	\$ 31,316	\$ 3,395	\$ 27,921.52	9.22
Waste Heat Recovery	\$ 1,097,884	\$ 204,958	\$ 892,926.50	5.36	\$ 1,756,026	\$ 287,038	\$ 1,468,987.43	6.12	\$ 3,574,614	\$ 287,038	\$ 3,287,575.19	12.45
Overhead Door Weatherstripping:8790	\$ 6,549,182	\$ 864,857	\$ 5,684,324.39	7.57	\$ 10,420,878	\$ 1,504,732	\$ 8,916,145.05	6.93	\$ 16,350,539	\$ 1,504,732	\$ 14,845,806.89	10.87
Weather Stripping - Field Tool:5466	\$ 244,134	\$ 27,952	\$ 216,182.63	8.73	\$ 355,072	\$ 53,808	\$ 301,263.21	6.60	\$ 660,710	\$ 53,808	\$ 606,901.53	12.28
Overhead Expenses	\$ -	\$ -	\$ -	-	\$ -	\$ 528,728.96	\$ -	-	\$ -	\$ 528,728.96	\$ -	-
Subtotal Commercial	\$ 12,350,031.32	\$ 2,212,294.86	\$ 10,137,736.46	5.58	\$ 20,693,627.90	\$ 3,853,448.68	\$ 16,840,179.22	5.37	\$ 30,966,309.60	\$ 3,853,448.68	\$ 27,112,860.91	8.04
Clothes Dryer	\$ 1,353,317	\$ 304,279	\$ 1,049,037.55	4.45	\$ 806,471	\$ 446,926	\$ 359,544.54	1.80	\$ 1,355,770	\$ 446,926	\$ 908,843.95	3.03
New Home	\$ 7,341,161	\$ 5,943,493	\$ 1,397,667.74	1.24	\$ 10,790,900	\$ 6,086,977	\$ 4,703,923.05	1.77	\$ 18,319,655	\$ 6,086,977	\$ 12,232,677.66	3.01
Range	\$ 553,843	\$ -	\$ 553,842.91	-	\$ 322,066	\$ 31,176	\$ 290,890.54	10.33	\$ 407,981	\$ 31,176	\$ 376,805.31	13.09
Air Sealing	\$ 735,672	\$ 298,615	\$ 437,057.28	2.46	\$ 1,075,987	\$ 338,573	\$ 737,414.03	3.18	\$ 1,755,643	\$ 338,573	\$ 1,417,069.68	5.19
Attic Insulation	\$ 502,279	\$ 261,196	\$ 241,083.52	1.92	\$ 869,054	\$ 281,938	\$ 587,115.94	3.08	\$ 1,547,540	\$ 281,938	\$ 1,265,602.11	5.49
Duct Insulation	\$ 1,741,508	\$ 310,497	\$ 1,431,010.50	5.61	\$ 2,931,606	\$ 385,600	\$ 2,546,005.71	7.60	\$ 5,123,053	\$ 385,600	\$ 4,737,453.09	13.29
Whole Kit	\$ 1,138,127	\$ 75,645	\$ 1,062,482.24	15.05	\$ 1,211,764	\$ 87,297	\$ 1,124,467.10	13.88	\$ 1,810,286	\$ 87,297	\$ 1,722,988.54	20.74
95% Eff Heater	\$ 5,083,206	\$ 1,669,470	\$ 3,413,736.68	3.04	\$ 5,389,539	\$ 1,956,584	\$ 3,432,954.95	2.75	\$ 9,597,249	\$ 1,956,584	\$ 7,640,665.32	4.91
Electric to Gas 95+ Heater	\$ 1,407,699	\$ 70,820	\$ 1,336,878.66	19.88	\$ 1,492,532	\$ 150,331	\$ 1,342,200.80	9.93	\$ 2,657,779	\$ 150,331	\$ 2,507,447.53	17.68
Electric to Gas Heater	\$ 2,664,822	\$ 74,862	\$ 2,589,959.80	35.60	\$ 2,825,414	\$ 225,379	\$ 2,600,034.79	12.54	\$ 5,031,265	\$ 225,379	\$ 4,805,886.16	22.32
Condensing Water Heater	\$ 18,071	\$ 5,040	\$ 13,030.86	3.59	\$ 10,207	\$ 8,015	\$ 2,192.57	1.27	\$ 16,654	\$ 8,015	\$ 8,639.97	2.08
Electric to Gas Water Heater	\$ 163,268	\$ 4,005	\$ 159,262.44	40.76	\$ 92,220	\$ 30,881	\$ 61,339.34	2.99	\$ 150,472	\$ 30,881	\$ 119,591.08	4.87
Gas to Gas Water Heater	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	-
Tankless Water Heater	\$ 861,660	\$ 267,050	\$ 594,610.13	3.23	\$ 675,078	\$ 393,495	\$ 281,582.74	1.72	\$ 1,202,123	\$ 393,495	\$ 808,628.26	3.05
Electric to Gas Tankless Water Heater	\$ 143,425	\$ 13,389	\$ 130,036.11	10.71	\$ 112,368	\$ 34,436	\$ 77,931.96	3.26	\$ 200,096	\$ 34,436	\$ 165,659.93	5.81
Overhead Expenses	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	-
Subtotal Residential	\$ 23,708,057.20	\$ 9,298,360.80	\$ 14,409,696.40	2.55	\$ 28,605,206.92	\$ 10,457,608.84	\$ 18,147,598.08	2.74	\$ 49,175,567.44	\$ 10,457,608.84	\$ 38,717,958.59	4.70
Overhead Expenses	\$ -	\$ -	\$ -	-	\$ -	\$ 2,404,271.04	\$ -	-	\$ -	\$ 2,404,271.04	\$ -	-
TOTAL PORTFOLIO	\$ 36,058,088.52	\$ 11,510,655.66	\$ 24,547,432.86	3.13	\$ 49,298,834.82	\$ 16,715,328.57	\$ 32,583,506.26	2.95	\$ 80,141,877.04	\$ 16,715,328.57	\$ 63,426,548.47	4.79

OKLAHOMA NATURAL GAS
 SUMMARY OF MEASURE LEVEL BENEFIT/COST EVALUATIONS

Program	PROGRAM ADMINISTRATOR COST TEST				RATEPAYER IMPACT MEASURE TEST			
	BENEFITS	COST	NET BENEFIT	BENEFIT/COST	BENEFITS	COST	NET BENEFIT	BENEFIT/COST
Commercial Air Sealing	\$ 458,230	\$ 79,057	\$ 379,172.44	5.80	\$ 458,230	\$ 371,180	\$ 87,049.23	1.23
Boiler	\$ 36,735	\$ 4,068	\$ 32,666.51	9.03	\$ 36,735	\$ 27,822	\$ 8,912.53	1.32
Boiler Replacement	\$ 485,260	\$ 53,738	\$ 431,521.99	9.03	\$ 485,260	\$ 367,526	\$ 117,733.86	1.32
Boiler Tune-Up	\$ 970	\$ 800	\$ 169.80	1.21	\$ 970	\$ 1,409	\$ (439.31)	0.69
Combination Oven	\$ 25,090	\$ 5,664	\$ 19,425.72	4.43	\$ 25,090	\$ 21,491	\$ 3,599.06	1.17
Convection Oven	\$ 3,298	\$ 745	\$ 2,553.36	4.43	\$ 3,298	\$ 2,825	\$ 473.07	1.17
Destratification Fan	\$ 10,980	\$ 2,050	\$ 8,930.38	5.36	\$ 10,980	\$ 9,025	\$ 1,955.18	1.22
Duct Sealing	\$ 1,566,030	\$ 186,119	\$ 1,379,911.39	8.41	\$ 1,566,030	\$ 1,197,424	\$ 368,606.17	1.31
Fan Destratification	\$ 59,406	\$ 11,089	\$ 48,317.21	5.36	\$ 59,406	\$ 48,828	\$ 10,578.36	1.22
Fryer	\$ 323,050	\$ 51,952	\$ 271,097.77	6.22	\$ 323,050	\$ 258,530	\$ 64,519.39	1.25
Gas Griddle - 36"	\$ 30,045	\$ 4,832	\$ 25,212.93	6.22	\$ 30,045	\$ 24,044	\$ 6,000.50	1.25
Gas Griddle - 48"	\$ 80,119	\$ 12,884	\$ 67,234.48	6.22	\$ 80,119	\$ 64,118	\$ 16,001.34	1.25
HE Furnace Replacement	\$ 181,960	\$ 24,638	\$ 157,322.15	7.39	\$ 181,960	\$ 141,714	\$ 40,246.15	1.28
Pipe Insulation	\$ 359,203	\$ 48,636	\$ 310,566.69	7.39	\$ 359,203	\$ 279,754	\$ 79,449.16	1.28
Radiant Heaters	\$ 99,984	\$ 11,072	\$ 88,911.33	9.03	\$ 99,984	\$ 75,726	\$ 24,258.03	1.32
Steam & HW Leaks	\$ 12,494	\$ 4,311	\$ 8,182.62	2.90	\$ 12,494	\$ 12,089	\$ 404.98	1.03
Steam Leak Repair	\$ 39,738	\$ 13,712	\$ 26,026.05	2.90	\$ 39,738	\$ 38,450	\$ 1,288.11	1.03
Steam Trap Replacement	\$ 625,973	\$ 216,001	\$ 409,971.68	2.90	\$ 625,973	\$ 605,682	\$ 20,290.73	1.03
Strategic Energy Management	\$ 950,551	\$ 128,706	\$ 821,845.63	7.39	\$ 950,551	\$ 740,307	\$ 210,244.52	1.28
Commercial Tankless Water Heater	\$ 14,205	\$ 1,573	\$ 12,632.15	9.03	\$ 14,205	\$ 10,759	\$ 3,446.48	1.32
Vent Hood	\$ 16,163	\$ 2,188	\$ 13,974.54	7.39	\$ 16,163	\$ 12,588	\$ 3,574.97	1.28
Waste Heat Recovery	\$ 1,756,026	\$ 194,464	\$ 1,561,561.43	9.03	\$ 1,756,026	\$ 1,329,979	\$ 426,046.99	1.32
Overhead Door Weatherstripping:8790	\$ 8,786,930	\$ 1,515,985	\$ 7,270,944.51	5.80	\$ 8,786,930	\$ 7,117,689	\$ 1,669,240.82	1.23
Weather Stripping - Field Tool:5466	\$ 355,072	\$ 61,260	\$ 293,812.00	5.80	\$ 355,072	\$ 287,619	\$ 67,452.45	1.23
Overhead Expenses	\$ -	\$ 528,728.96	\$ -	-	\$ -	\$ 528,728.96	\$ -	-
Subtotal Commercial	\$ 16,277,510.46	\$ 3,164,274.66	\$ 13,113,235.79	5.14	\$ 16,277,510.46	\$ 13,575,306.67	\$ 2,702,203.78	1.20
Clothes Dryer	\$ 806,471	\$ 1,141,570	\$ (335,099.67)	0.71	\$ 806,471	\$ 1,534,231	\$ (727,760.79)	0.53
New Home	\$ 10,790,900	\$ 2,768,484	\$ 8,022,416.22	3.90	\$ 10,790,900	\$ 8,029,815	\$ 2,761,085.21	1.34
Range	\$ 59,099	\$ 331,373	\$ (272,274.47)	0.18	\$ 59,099	\$ 360,188	\$ (301,089.26)	0.16
Air Sealing	\$ 1,075,987	\$ 296,034	\$ 779,953.24	3.63	\$ 1,075,987	\$ 816,013	\$ 259,973.69	1.32
Attic Insulation	\$ 869,054	\$ 153,672	\$ 715,381.82	5.66	\$ 869,054	\$ 579,051	\$ 290,002.81	1.50
Duct Insulation	\$ 2,931,606	\$ 556,405	\$ 2,375,200.62	5.27	\$ 2,931,606	\$ 1,990,130	\$ 941,475.79	1.47
Whole Kit	\$ 1,120,726	\$ 87,297	\$ 1,033,428.51	12.84	\$ 1,120,726	\$ 626,962	\$ 493,764.04	1.79
95% Eff Heater	\$ 5,389,539	\$ 3,079,758	\$ 2,309,781.26	1.75	\$ 5,389,539	\$ 5,717,795	\$ (328,255.85)	0.94
Electric to Gas 95+ Heater	\$ 1,492,532	\$ 852,881	\$ 639,650.74	1.75	\$ 1,492,532	\$ 1,583,436	\$ (90,904.32)	0.94
Electric to Gas Heater	\$ 2,825,414	\$ 1,614,533	\$ 1,210,880.43	1.75	\$ 2,825,414	\$ 2,997,499	\$ (172,084.95)	0.94
Condensing Water Heater	\$ 10,207	\$ 16,496	\$ (6,288.70)	0.62	\$ 10,207	\$ 21,428	\$ (11,221.37)	0.48
Electric to Gas Water Heater	\$ 92,220	\$ 149,038	\$ (56,817.98)	0.62	\$ 92,220	\$ 193,605	\$ (101,384.24)	0.48
Gas to Gas Water Heater	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	-
Tankless Water Heater	\$ 675,078	\$ 701,196	\$ (26,118.15)	0.96	\$ 675,078	\$ 1,031,629	\$ (356,550.97)	0.65
Electric to Gas Tankless Water Heater	\$ 112,368	\$ 116,716	\$ (4,347.43)	0.96	\$ 112,368	\$ 171,717	\$ (59,348.75)	0.65
Overhead Expenses	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	-
Subtotal Residential	\$ 28,251,200.76	\$ 11,865,454.30	\$ 16,385,746.46	2.38	\$ 28,251,200.76	\$ 25,653,499.71	\$ 2,597,701.05	1.10
Overhead Expenses	\$ -	\$ 2,404,271.04	\$ -	-	\$ -	\$ 2,404,271.04	\$ -	-
TOTAL PORTFOLIO	\$ 44,528,711.21	\$ 17,434,000.00	\$ 27,094,711.21	2.55	\$ 44,528,711.21	\$ 41,633,077.42	\$ 2,895,633.79	1.07

Program Name	Participant Cost Test			Total Resource Cost Test			Societal Cost Test		
	Benefits	Costs	B/C Ratio	Benefits	Costs	B/C Ratio	Benefits	Costs	B/C Ratio
Commercial Custom Program	\$ 12,350,031	\$ 2,212,295	5.58	\$ 20,693,628	\$ 3,324,720	6.22	\$ 30,966,310	\$ 3,324,720	9.31
Commercial Education/Administrative	\$ -	\$ -	-	\$ -	\$ 528,729	-	\$ -	\$ 528,729	-
Commercial Program	\$ 12,350,031	\$ 2,212,295	5.58	\$ 20,693,628	\$ 3,853,449	5.37	\$ 30,966,310	\$ 3,853,449	8.04
Residential Range Program	\$ 553,843	\$ -	0.00	\$ 322,066	\$ 31,176	10.33	\$ 407,981	\$ 31,176	13.09
Residential Heating System Program	\$ 9,155,727	\$ 1,815,152	5.04	\$ 9,707,485	\$ 2,332,294	4.16	\$ 17,286,293	\$ 2,332,294	7.41
Residential Water Heating Program	\$ 1,186,424	\$ 289,484	4.10	\$ 889,874	\$ 466,827	1.91	\$ 1,569,346	\$ 466,827	3.36
Residential Clothes Dryer Program	\$ 1,353,317	\$ 304,279	4.45	\$ 806,471	\$ 446,926	1.80	\$ 1,355,770	\$ 446,926	3.03
Residential Water Conservation Kits Program	\$ 1,138,127	\$ 75,645	15.05	\$ 1,211,764	\$ 87,297	13.88	\$ 1,810,286	\$ 87,297	20.74
Residential Low Income Program	\$ 2,979,459	\$ 870,307	3.42	\$ 4,876,647	\$ 1,006,111	4.85	\$ 8,426,236	\$ 1,006,111	8.38
Residential New Home Program	\$ 7,341,161	\$ 5,943,493	1.24	\$ 10,790,900	\$ 6,086,977	1.77	\$ 18,319,655	\$ 6,086,977	3.01
Residential Education/Administrative	\$ -	\$ -	-	\$ -	\$ 2,404,271	-	\$ -	\$ 2,404,271	-
Residential Program	\$ 23,708,057	\$ 9,298,361	2.55	\$ 28,605,207	\$ 12,861,880	2.22	\$ 49,175,567	\$ 12,861,880	3.82
Total Portfolio	\$ 36,058,089	\$ 11,510,656	3.13	\$ 49,298,835	\$ 16,715,329	2.95	\$ 80,141,877	\$ 16,715,329	4.79

Program Name	Program Administrator Cost Test			Ratepayer Impact Measure Test			Incentives	Program Overhead Costs	Total Program Costs	Incremental Costs	Dth Savings
	Benefits	Costs	B/C Ratio	Benefits	Costs	B/C Ratio					
Commercial Custom Program	\$ 16,277,510	\$ 2,635,546	6.18	\$ 16,277,510	\$ 13,046,578	1.25	\$ 1,523,121	\$ 1,112,425	\$ 2,635,546	\$ 2,212,295	2,483,576
Commercial Education/Administrative	\$ -	\$ 528,729	-	\$ -	\$ 528,729	-	\$ -	\$ 528,729	\$ 528,729	\$ -	-
Commercial Program	\$ 16,277,510	\$ 3,164,275	5.14	\$ 16,277,510	\$ 13,575,307	1.20	\$ 1,523,121	\$ 1,641,154	\$ 3,164,275	\$ 2,212,295	2,483,576
Residential Range Program	\$ 59,099	\$ 331,373	0.18	\$ 59,099	\$ 360,188	0.16	\$ 300,197	\$ 31,176	\$ 331,373	\$ -	6,509
Residential Heating System Program	\$ 9,707,485	\$ 5,547,172	1.75	\$ 9,707,485	\$ 10,298,730	0.94	\$ 5,030,030	\$ 517,142	\$ 5,547,172	\$ 1,815,152	1,165,956
Residential Water Heating Program	\$ 889,874	\$ 983,446	0.90	\$ 889,874	\$ 1,418,379	0.63	\$ 806,103	\$ 177,343	\$ 983,446	\$ 289,484	105,107
Residential Clothes Dryer Program	\$ 806,471	\$ 1,141,570	0.71	\$ 806,471	\$ 1,534,231	0.53	\$ 998,924	\$ 142,647	\$ 1,141,570	\$ 304,279	87,296
Residential Water Conservation Kits Program	\$ 1,120,726	\$ 87,297	12.84	\$ 1,120,726	\$ 626,962	1.79	\$ 75,645	\$ 11,652	\$ 87,297	\$ 75,645	113,231
Residential Low Income Program	\$ 4,876,647	\$ 1,006,111	4.85	\$ 4,876,647	\$ 3,385,195	1.44	\$ 870,307	\$ 135,804	\$ 1,006,111	\$ 870,307	555,117
Residential New Home Program	\$ 10,790,900	\$ 2,768,484	3.90	\$ 10,790,900	\$ 8,029,815	1.34	\$ 2,625,000	\$ 143,484	\$ 2,768,484	\$ 5,943,493	1,188,503
Residential Education/Administrative	\$ -	\$ 2,404,271	-	\$ -	\$ 2,404,271	-	\$ -	\$ 2,404,271	\$ 2,404,271	\$ -	-
Residential Program	\$ 28,251,201	\$ 14,269,725	1.98	\$ 28,251,201	\$ 28,057,771	1.01	\$ 10,706,206	\$ 3,563,519	\$ 14,269,725	\$ 9,298,361	3,221,719
Total Portfolio	\$ 44,528,711	\$ 17,434,000	2.55	\$ 44,528,711	\$ 41,633,077	1.07	\$ 12,229,327	\$ 5,204,673	\$ 17,434,000	\$ 11,510,656	5,705,295