

BEFORE THE CORPORATION COMMISSION OF OKLAHOMA

IN THE MATTER OF THE APPLICATION OF)
OKLAHOMA GAS AND ELECTRIC COMPANY)
FOR AN ORDER OF THE COMMISSION)
APPROVING THE COMPANY'S 2016 DEMAND) CAUSE NO. PUD 201 **500247**
PORTFOLIO AND AUTHORIZING RECOVERY OF)
THE COSTS OF THE DEMAND PROGRAMS)
THROUGH THE DEMAND PROGRAM RIDER)

APPLICATION

COMES NOW Oklahoma Gas and Electric Company, hereinafter referred to as “Applicant,” “OG&E,” or “Company,” and hereby files its Application pursuant to OAC 165:35-41-4 in the above styled and numbered cause.

I. Parties.

OG&E is an investor-owned electric public utility that owns and operates plant, property, and other assets used for the generation, production, transmission, distribution and sale of electric power and energy at wholesale and at retail in the states of Oklahoma and Arkansas. OG&E is incorporated in the State of Oklahoma, is subject to the regulatory authority of this Commission with respect to its retail rates and charges for sales of electricity made within the State of Oklahoma, and has its principal place of business at 321 N. Harvey, Oklahoma City, Oklahoma 73102. Applicant is represented for the purpose of these proceedings by the following named individuals whose addresses are reflected below:

Stephanie G. Houle, OBA No. 22595
Patrick D. Shore, OBA No. 8205
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CORPORATION COMMISSION
OF OKLAHOMA

All correspondence, pleadings and communications with respect to this proceeding should be directed to all named counsel at their respective addresses.

II. Facts.

A. Pursuant to OAC 165:35-41-4(a), all electric utilities under rate regulation of the Commission having more than 10,000 meters in the state of Oklahoma shall propose, at least once every three years, and be responsible for the administration and implementation of a Demand Portfolio of Demand Programs within their service territories. OG&E is an electric utility under rate regulation of the Commission and has more than 10,000 meters in the state of Oklahoma.

B. As further required under OAC 165:35-41-4(a), such proposals shall be made by filing an application with the Commission on or before July 1 prior to the year the programs will be effective. In this Application, OG&E is seeking Commission approval of a Demand Portfolio for the years 2016 to 2018. OG&E plans to implement the Demand Programs in the Demand Portfolio effective January 1, 2016.

C. The 2016 Demand Portfolio includes five energy efficiency programs and an Education program:

- a. Home Energy Efficiency Program ("HEEP")
- b. Positive Energy-New Home Construction ("PE-NHC")
- c. Weatherization Residential Assistance Program ("WRAP")
- d. Commercial Energy Efficiency Program ("CEEP")
- e. Integrated Volt Var Control Program ("IVVC")
- f. Education Program

D. Exhibit A to the Application provides the information as required by OAC 165:35-41-4(a)(1)-(20).

E. Pursuant to OAC 165:35-41-4(c)(2), OG&E is further requesting the recovery of costs associated with research and development investments that will utilize the results of research to test and validate expanded program offerings and features for residential, commercial and industrial customers.

F. OG&E is seeking to recover its program costs, lost net revenues associated with any achieved energy and demand savings, and performance based incentives (performance based incentives are calculated on operation and maintenance costs only) for the energy efficiency

programs through the Demand Program Rider. OG&E is not requesting recovery of the capital expenses associated with the IVVC Program.

III. Legal Authority.

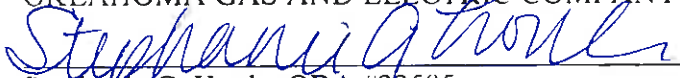
The Commission has jurisdiction to grant the relief requested herein by virtue of Article IX, Section 18 and 17 O.S. §§151 *et. seq.*

IV. Relief Sought.

WHEREFORE, premises considered, Applicant requests that after appropriate notice and hearing, the Commission issue an Order (i) approving OG&E's 2016 Demand Portfolio; (ii) authorizing the recovery of the program costs, lost net revenues associated with any achieved energy and demand savings and performance based incentives for the energy efficiency programs through the Demand Program Rider; (iii) authorizing the recovery of costs associated with research and development investments; and (iv) granting such other and further relief as the Commission may determine to be fair, just and equitable in the premises.

Respectfully submitted,

OKLAHOMA GAS AND ELECTRIC COMPANY



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Patrick D. Shore, OBA # 8205

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CERTIFICATE OF MAILING

This is to certify that on the 1st day of July, 2015, a true and correct copy of the above and foregoing Application was electronically transmitted to:

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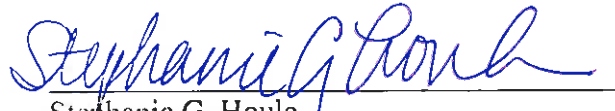

Stephanie G. Houle

Exhibit “A”

2016 Demand Portfolio

Home Energy Efficiency Program (“HEEP”)

While the HEEP has been offered in previous program portfolios, the 2016-2018 HEEP is being expanded and revised to include a more comprehensive residential customer approach.

1. A description of the intent of the Demand Portfolio as a whole

OG&E’s 2016 Demand Portfolio is structured according to the requirements set forth in OAC 165:35-41-4(b). The Demand Portfolio includes comprehensive long-term energy efficiency programs and an education program targeted to all customer classes. The portfolio is designed to provide energy savings and demand reduction for OG&E customers, minimize long-term cost of utility service, delay the need for new generation, and enable customers to better manage their energy use.

2. A description of the intent of each Demand Program

HEEP is a multipronged residential offering designed to incentivize OG&E’s Oklahoma customers to reduce their energy consumption by performing energy efficient upgrades to their homes. The proposed program combines Residential Solutions, Residential HVAC Replacement and Tune-up, and Consumer Products components. The increased choices to participate are expected to result in increased customer engagement, greater measure adoption and increased program savings.

a. Residential Solutions Component

The Residential Solutions component of the HEEP program is a market-driven approach that promotes energy efficiency by providing homeowners with low-cost home assessment, direct install measures, community educational outreach, and inducements on home retrofits. Inducements are provided to encourage participation and decrease the upfront costs of energy efficient upgrades. This component also includes a direct outreach channel targeted at reaching residential customers through partnerships with local schools and education for school aged children. The school portion will provide 5th grade students an educational opportunity to learn about how they can affect the energy efficiency of their home. Teachers will work directly with the program team to obtain the teaching materials and energy efficient direct install kits to distribute to students.

b. Residential HVAC Replacement and Tune-up Component

The A/C Tune up and HVAC Replacement component of the HEEP program focuses on improving the energy efficiency of the HVAC systems of residences. It provides inducements to improve operating efficiency of the existing HVAC unit or to replace the existing unit with a higher efficiency unit.

c. Consumer Products Component

The consumer products component promotes the purchase of energy efficient lighting and products including, but not limited to LED Lighting, advanced power strips, clothes washers and kitchen appliances. To help customers offset a portion of the

incremental cost associated with higher efficiency appliances and products, the program utilizes upstream, midstream and downstream inducements.

3. A description and quantification of the target market of each Demand Program, differentiated by customer sectors

All OG&E residential customers, except customers that are eligible for WRAP, are the target market for HEEP. OG&E will focus its marketing efforts on older homes in the OG&E service area. Older homes (primarily built before 2000), typically have lower levels of insulation, higher infiltration and single pane windows. Therefore, these homes can realize savings more quickly and can have a greater impact on-peak load reduction. However, all homes will be eligible for HEEP. As part of the HEEP, the Schools Outreach is targeted at all 5th grade students.

4. A base line describing the state of the market that each Demand Program is intended to address, taking into account applicable building energy codes and appliance and equipment energy standards

A variety of resources, including the Arkansas Technical Reference Manual ("TRM"), the Texas TRM, EnergyGauge residential energy modeling software, the ENERGY STAR product website, or studies authored by the Department of Energy ("DOE") were used to develop baselines for the state of the market that the HEEP program intends to address with each measure. The estimated useful life for each measure was based on California's Database for Energy Efficient Resources or the Arkansas TRM. Each of the resources are typically updated with the latest information regarding building codes and appliance and equipment energy standards.

5. A description of the barriers to investment in energy efficiency and demand response in the absence of each Demand Program and the ways each program will reduce or eliminate these barriers

Residential Solutions Component

a. Limited customer knowledge

Participants will be informed of the opportunities and benefits of pursuing energy efficient projects specific to their home and individual needs. By engaging with customers at every step of the process, OG&E will be able to ensure customer satisfaction and understanding throughout their participation.

b. Perceived high initial cost to energy efficiency

OG&E will provide measure-based inducements to lower the upfront investment required from customers.

c. Limited contractor knowledge or experience in energy efficiency

OG&E will engage contractors and work to educate the larger contractor community on energy efficiency opportunities available through OG&E programs.

These efforts will ensure proper execution of projects, increase overall knowledge within the contractor community and increase customer satisfaction.

d. Increased work for customers or contractors due to participation process

The implementation team will provide a simple and accessible application, submission and processing solution to improve the efficiency and visibility of the program.

Residential HVAC Replacement and Tune-up Component

a. Limited trade knowledge on how to participate in energy efficient programs

Contractors will be educated to help them properly execute the program. This will allow the contractors to better represent the benefits of the OG&E program to the customer base.

b. Limited customer knowledge on the benefits of HVAC maintenance and replacement

Knowledgeable program teams will be developed that can provide support and information to customers. The additional information will allow the customers to make better decisions on the energy efficiency of their HVAC systems.

Consumer Products Component

a. Limited customer knowledge on benefits of efficient products

The delivery approach is designed to provide educational materials and outreach opportunities to help influence customer purchasing behavior.

b. Quickly changing technologies and regulatory environments

The consumer products channel will be able to evolve with the continually changing marketplace.

c. Limited knowledge of efficient products and their benefits at national, regional and local sales locations

This offer is designed to educate sales associates and participating partners at all levels within their organizations on the benefits of energy efficient products.

6. A description of research and public input that contributed to the development of the content of each Demand Program

To identify programs and measures for inclusion in OG&E's Oklahoma Demand Portfolio, OG&E's Third Party Administrator ("TPA") CLEAResult, completed a thorough review of relevant data sources provided by OG&E and/or obtained from public sources including the following:

- a. Customer usage and sales data
- b. Applicable reports and studies, including annual reports, evaluations and potential studies
- c. Public data mining including:

- i. Federal Reserve Bank data
- ii. Commercial Buildings Energy Consumption Survey (“CBECS”) and Residential Energy Consumption Survey (“RECS”)
- iii. Energy Information Administration (“EIA”)
- iv. US Census Bureau

The TPA used these data to develop a Market Profile for OG&E’s Oklahoma service territory intended to address two key objectives: (1) to better understand current economic trends and (2) to characterize OG&E’s Residential market including prominent end-use consumption levels and customer counts. Collectively, the data contained in the Market Profile formed the context and basis for measure selection and measure characterization.

7. A report of the cost-effectiveness of each Demand Program and the Demand Portfolio, including program and measure-level supporting data which shall include, but not be limited to, cost-effectiveness screening assumptions of gross and net energy and demand savings, coincident demand factors, energy allocation factors for seasonal and for peak, off-peak, and shoulder periods, non-electric resource benefits, non-resource benefits, participation and/or measure unit numbers, inducement levels, measure cost, and other non-inducement program costs

This information is contained in Exhibit MGC-2 attached to Witness Culbertson’s testimony.

8. A detailed description of the derivation of the energy, generation, and transmission and distribution avoided costs, retail cost projections, reserve margins, discount rates, and average and peak line loss assumptions used in the cost-effectiveness calculations

For avoided capacity, (1) OG&E assumes a simple cycle gas turbine as a proxy unit, with the best available technology to provide an efficient heat rate, installed at an existing station location and (2) The annualized capacity cost employs Real Economic Carrying Charge to determine Fixed Charge rate on generation unit and is escalated in continuing years due to inflation. The avoided energy is the forecasted load weighted average hourly market price for the following time periods: Summer on-peak, Summer off-peak, Winter on-peak, Winter off-peak and shoulder. OG&E does not calculate a transmission or distribution avoided cost and reserve margin is embedded in the avoided cost calculation. The avoided capacity cost information is consistent with a letter dated June 30, 2014, sent to Brandy Wreath, Director, Public Utilities Division of the Oklahoma Corporation Commission, regarding OG&E’s most recently determined avoided costs. The avoided energy cost is averaged for time periods related to this Demand Program filing.

The retail cost projection used in the cost-effectiveness calculations is estimated at \$0.10 per kWh. The discount rates used for the TRC, PACT, and the RIM tests are OG&E’s weighted average cost of capital 8.32%, for the PCT test, a Bank of Oklahoma consumer rate of 8.5% published on June 10, 2015 is used for the discount rate and the SCT uses a 2.87% discount rate based on the 20-year T-bill rate published June 3, 2015 at treasury.gov. The line losses used in

the cost-effectiveness tests are 8.59% and 7.76% for demand and energy respectively and are from OG&E's most recent line loss study which used 2012 as the test year.

9. A description of how each Demand Program is expected to change over its course to reflect expected changes in market penetration, technology, and other market information, as well as lessons learned

Any changes that are anticipated during the life of the program will be made after OG&E considers feedback from stakeholders, including HVAC contractors working in the program, customers and program manager input.

10. A plan for evaluation, measurement, and verification of performance and results of the demand portfolio and each program, including a plan for the use deemed savings, if applicable, or the use of statistical, if applicable, or the use of metering, where appropriate; provided that cost associated with the EM&V plan shall not exceed five percent (5%) of the total three-year Demand Portfolio budget

OG&E will verify the accuracy and complete installation of measures to ensure projects meet program standards. A sample of participant homes submitted by OG&E trade allies will receive QA/QC inspections from OG&E or third party QA/QC contractors to ensure installation is complete and inputs to energy and demand savings calculations are properly recorded.

OG&E will contract with a third party, independent entity to perform evaluation, measurement, and verification activities. Measurement and verification of the Residential Solutions component will rely on multiple approaches. Engineering review, billing analysis, and on-site inspection may all be used. The evaluator will use data collected for a sample of program participants to provide statistically valid estimates of net annual energy (kWh) and peak demand (kW) savings estimates at the program level.

For HVAC tune-ups and replacement projects, a sample from each participating trade ally will receive QA/QC inspections from OG&E or third party QA/QC contractors to ensure the work has been completed in accordance with program requirements and/or to check the eligibility of replacement systems. A third party evaluator may also engage in a ride-along for a sample of tune-up projects.

For measures that are incented using the midstream or upstream channel (price buy-downs at the retailer or manufacturer level), the evaluator will review all invoices and project documentation provided to OG&E by retailers and manufacturers. Invoices will be compared to program tracking data to ensure the number of measures discounted is correctly reported. The evaluator may also perform in-store visits for a sample of participating retailers to ensure that program measures are properly discounted. In-store surveying of purchasing customers or general population surveying may be used to assess customer purchasing decisions and awareness of program discounts. Sales data from participating retailers will also be reviewed and statistical models may be built to estimate the impact of program discounts on sales quantities for program measures.

For measures that are incented using the downstream channel (rebates, instant discounts with completed applications), the evaluator will select a sample of participating customers. The sample customers will be surveyed to verify the purchase and installation of program measures. The survey will also be used to assess customer purchasing decisions, program satisfaction, and related customer feedback. A subset of the survey sample may also be selected for on-site verification of measure installation.

In addition to the activities described above for determining program impacts on energy consumption and peak demand, the evaluator will conduct surveys with program participants, trade allies, and participating retailers/manufacturers to assess program processes and customer feedback. Interviews with program staff will also be conducted to provide input regarding program operations and any potential areas for program improvement.

11. A plan for evaluation of the market effects of each Demand Program or applicable group of programs

OG&E performs surveys to identify a customer's experience interacting with OG&E and their likelihood to refer OG&E to others. The surveys are sent to many customers who participate in OG&E's demand side management programs. The results of these surveys are used to evaluate the market effects of each OG&E program and identify ways to improve the portfolio of programs.

Additionally, OG&E uses the net promoter score test to identify each program's impact on customer loyalty. The net promoter score looks at the number of customers who promote OG&E by identifying those customers who rate OG&E a 9 or 10 on a scale of 1-10 and compare that number to the number of customers who rate OG&E a 6 or below on a scale of 1-10. The net promoter score is designed to be a higher level of ranking above the traditional customer satisfaction test because it measures the number of customers that promote OG&E programs to others versus those that will speak negatively of OG&E programs to others.

12. A plan for evaluation of administration and implementation of each Demand Program or applicable group of programs

OG&E's program management will be responsible for the day-to-day operations and coordination of the HEEP program and its contractors. Additionally, OG&E has a formal process to review the administration and the efficiency of each program. The process includes a monthly review of the program's performance, attainment of participation goals, and maintenance of budget. When there are administration concerns, desired changes, or implementation needs, the program manager follows the formal process and requests assistance from the Management team.

13. A plan for ending a Demand Program, if applicable

In each agreement with its contractors, OG&E has a 90-day term notice of termination provision to give the supplier adequate time to finish providing services for all of the participants who have been recruited to the program. Additionally, the impact of customer recruitment

messages designed to increase participation in a program may last for several months. As a result, OG&E will need approximately three (3) months to end HEEP.

14. A process for amending a Demand Program

No amendments will be made to the program without informing the Oklahoma Corporation Commission. OG&E will follow the rules as stated in OAC 165:35-41-5(e) regarding amendments.

15. An annual budget for each Demand Program, providing detail for program costs, and differentiating evaluation, measurement, and verification costs from other program costs

This information is contained in Exhibit MGC-1 attached in Witness Culbertson's testimony.

16. A report on how the demand portfolio is expected to affect rates, sales, average bills and total revenue requirement for each customer sector

OG&E expects the total revenue requirement for the three years of the Demand Portfolio to be \$103,158,232 for all programs. The average monthly Program Cost impact to residential customers is expected to be \$2.13 in 2016; \$2.29 in 2017; and \$2.46 in 2018.

17. A report on how the Demand Portfolio meets savings goals that may be in place at the time of filing

The total on-peak demand reduction of this portfolio is projected to be approximately 81 MW and is reflected in OG&E's Integrated Resource Plan over 2016-2018. The associated portfolio energy savings are estimated to be 240,024 MWh.

18. An estimate of expected savings in peak demand, energy use, and capacity, with location information about the source of savings if savings are not expected to be evenly distributed throughout the utility system

OG&E expects the savings provided by its Demand Program portfolio to be evenly distributed throughout the utility system.

19. Detailed explanation of the utility's request for recovery of prudently incurred program costs, recoupment and calculation of lost net revenue, and additional incentives the utility proposes it requires to make the programs workable

OG&E proposes to recover program costs, lost net revenue and performance based incentives through the Demand Program Rider ("DPR"). Bryan Scott's testimony in this cause includes calculations of these costs.

20. Identification of the demand portfolio administrator, including name, job title, business postal address, business electronic mail address, and business telephone number

B. Dean Pollock, Manager, Sales and Customer Support
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Positive Energy Home-New Construction (“PE-NHC”)

This program is a continuation from the 2010 and 2013 Demand Portfolios and encourages builders and homeowners to utilize energy efficient PE-NHC practices by installing higher level than required thermal packages in the construction of new homes. Builders will be paid inducements to bring new homes to the higher standards. These homes will be rated and certified by OG&E. This certification allows homebuilders to apply for available tax credits as a result of these upgrades.

1. A description of the intent of the Demand Portfolio as a whole

OG&E’s 2016 Demand Portfolio is structured according to the requirements set forth in OAC 165:35-41-4(b). The Demand Portfolio includes comprehensive long-term energy efficiency programs and an education program targeted to all customer classes. The portfolio is designed to provide energy savings and demand reduction for OG&E customers, minimize long-term cost of utility service, delay the need for new generation, and enable customers to better manage their energy use.

2. A description of the intent of each Demand Program

The PE-NHC program is designed to promote building energy efficient homes within the OG&E Oklahoma service territory. The program will work with builders and contractors to provide inducements to decrease the upfront costs of incorporating energy efficient upgrades when constructing new homes.

The program will utilize builders and contractors as the main marketing and outreach channel to educate potential buyers on the benefits to purchasing an energy efficient home. OG&E will provide them a significant amount of support to assist them in this process.

The program will work with the builders throughout the design and construction process, to ensure the completed home will meet or exceed PE-NHC home specifications required by the program.

3. A description and quantification of the target market of each Demand Program, differentiated by customer sectors

The program will target all builders and contractors constructing new single-family homes within the OG&E Oklahoma service territory.

4. A base line describing the state of the market that each Demand Program is intended to address, taking into account applicable building energy codes and appliance and equipment energy standards

A variety of resources, including the Arkansas TRM, the Texas TRM, EnergyGauge residential energy modeling software, the ENERGY STAR product website, or studies authored by the DOE was used to develop baselines for the state of the market that the PE-NHC program

intends to address with each measure. The estimated useful life for each measure was based on California's Database for Energy Efficient Resources or the Arkansas TRM. Each of the resources are typically updated with the latest information regarding building codes and appliance and equipment energy standards.

The Home Energy Rating System ("HERS") Index will be used on each house in the program to determine the program savings. The HERS Index is a method of comparing a particular home's energy efficiency based on the energy efficiency of the same size and shape home built to the RESNET Standard Home components which has an Index of 100. A code built home will also have an Index of about 100, an ENERGY STAR[®] home will have an Index of 85, and a Positive Energy Home-New Construction home will have an Index at or below 80. A lower Index indicates a more energy efficient home.

5. A description of the barriers to investment in energy efficiency and demand response in the absence of each Demand Program and the ways each Demand Program will reduce or eliminate these barriers

- a. Limited builder and contractor knowledge of program benefits

The program is designed to engage local builders and contractors to provide training and educational materials to increase program participation.

- b. Participation and application requirements

The participation process will be streamlined for contractors through the use of clear and concise documentation.

- c. End-use purchasers have limited knowledge regarding the benefits of purchasing an energy efficient home

The teams will work with builders and contractors to provide support in educating potential customers on the benefits of purchasing energy efficient homes. The program will also cross promote this program through OG&E's other offerings within the demand portfolio.

6. A description of research and public input that contributed to the development of the content of each Demand Program

To identify programs and measures for inclusion in OG&E's Oklahoma Demand Portfolio, OG&E's TPA, CLEAResult, thoroughly reviewed relevant data sources provided by OG&E and/or obtained from public sources including the following:

- a. Customer usage and sales data
- b. Applicable reports and studies, including annual reports, evaluations and potential studies
- c. Public data mining including:
 - i. Federal Reserve Bank data
 - ii. CBECS and RECS
 - iii. EIA
 - iv. US Census Bureau

The TPA used these data to develop a Market Profile for OG&E's Oklahoma service territory intended to address two key objectives: (1) to better understand current economic trends and (2) to characterize OG&E's Residential market including prominent end-use consumption levels and customer counts. Collectively, the data contained in the Market Profile formed the context and basis for measure selection and measure characterization.

7. A report of the cost-effectiveness of each Demand Program and the Demand Portfolio, including program and measure level supporting data which shall include, but not be limited to, cost-effectiveness screening assumptions of gross and net energy and demand savings, coincident demand factors, energy allocation factors for seasonal and for peak, off-peak, and shoulder periods, non-electric resource benefits, non-resource benefits, participation and/or measure unit numbers, inducement levels, measure cost, and other non-inducement program costs

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8. A detailed description of the derivation of the energy, generation, and transmission and distribution avoided costs, retail cost projections, reserve margins, discount rates, and average and peak line loss assumptions used in the cost-effectiveness calculations

For avoided capacity, (1) OG&E assumes a simple cycle gas turbine as a proxy unit, with the best available technology to provide an efficient heat rate, installed at an existing station location and (2) The annualized capacity cost employs Real Economic Carrying Charge to determine Fixed Charge rate on generation unit and is escalated in continuing years due to inflation. The avoided energy is the forecasted load weighted average hourly market price for the following time periods: Summer on-peak, Summer off-peak, Winter on-peak, Winter off-peak and shoulder. OG&E does not calculate a transmission or distribution avoided cost and reserve margin is embedded in the avoided cost calculation. The avoided capacity cost information is consistent with a letter dated June 30, 2014, sent to Brandy Wreath, Director, Public Utilities Division of the Oklahoma Corporation Commission, regarding OG&E's most recently determined avoided costs. The avoided energy cost is averaged for time periods related to this Demand Program filing.

The retail cost projection used in the cost-effectiveness calculations is estimated at \$0.10 per kWh. The discount rates used for the TRC, PACT, and the RIM tests are OG&E's weighted average cost of capital 8.32%, for the PCT test, a Bank of Oklahoma consumer rate of 8.5% published on June 10, 2015 is used for the discount rate and the SCT uses a 2.87% discount rate based on the 20-year T-bill rate published June 3, 2015 at treasury.gov. The line losses used in the cost-effectiveness tests are 8.59% and 7.76% for demand and energy respectively and are from OG&E's most recent line loss study which used 2012 as the test year.

9. A description of how each Demand Program is expected to change over its course to reflect expected changes in market penetration, technology, and other market information, as well as lessons learned

OG&E's PE-NHC Program data tracking system will capture data regarding the average participants heating and cooling efficiencies, thermal envelope efficiencies, and other details that will be used to improve program design and operation. Process evaluations will be used to ensure that market and trade ally communications have their intended effect and are helping produce permanent changes in the demand for high efficiency home construction.

10. A plan for evaluation, measurement, and verification of performance and results of the demand portfolio and each program, including a plan for the use deemed savings, if applicable, or the use of statistical, if applicable, or the use of metering, where appropriate; provided that costs associated with the EM&V plan shall not exceed five (5%) of the total three-year Demand Portfolio budget

OG&E will verify the accuracy and complete installation of measures to ensure projects meet program standards for inducement payments. A sample of homes submitted by builders will receive QA/QC inspections from OG&E or third party QA/QC contractors to ensure reported home improvements are installed as claimed.

OG&E will contract with a third party, independent entity to perform evaluation, measurement, and verification activities. Measurement and verification of the PE-NHC Program will rely on building simulation modeling for a statistically valid sample of participating new homes. The modeling approach will involve collecting and inputting data for each sample home into a RESNET approved software to estimate annual energy consumption and load profile. The RESNET approved software will also be used to model a standard efficiency home built to code. Each sample home will then be compared to the standard, code compliant home to determine annual energy savings (kWh) and peak demand reduction (kW). To collect data for the building simulation modeling, the evaluator will request project documentation for each home as well as existing energy models. On-site verification visits may be used to verify measure installation and home characteristics.

In addition to the activities described above for determining program impacts on energy consumption and peak demand, the evaluator will conduct surveys with participating builders to assess program processes and the equipment decision making process. Interviews with program staff will also be conducted to provide input regarding program operations and any potential areas for program improvement.

11. A plan for evaluation of the market effects of each Demand Program or applicable group of programs

OG&E performs surveys to identify a customer's experience interacting with OG&E and their likelihood to refer OG&E to others. The surveys are sent to many customers who participate in OG&E's demand side management programs. The results of these surveys are

used to evaluate the market effects of each OG&E program and identify ways to improve the portfolio of programs.

Additionally, OG&E uses the net promoter score test to identify each program's impact on customer loyalty. The net promoter score looks at the number of customers who promote OG&E by identifying those customers who rate OG&E a 9 or 10 on a scale of 1-10 and compare that number to the number of customers who rate OG&E a 6 or below on a scale of 1-10. The net promoter score is designed to be a higher level of ranking above the traditional customer satisfaction test because it measures the number of customers that promote OG&E programs to others versus those that will speak negatively of OG&E programs to others.

12. A plan for evaluation of administration and implementation of each program or applicable group of programs

OG&E will have one dedicated program manager that will be responsible for the day-to-day operations and coordination of the program and its contractors. Additionally, OG&E has a formal process to review the administration and the efficiency of each program. The process includes a monthly review of the program's performance, attainment of participation goals, and maintenance of budget. When there are administration concerns, desired changes, or implementation needs, the program manager follows the formal process and requests assistance from the Management team.

13. A plan for ending a program, if applicable

In each agreement with its contractors, OG&E has a 90-day term notice of termination provision to give the supplier adequate time to finish providing services for all of the participants who have been recruited to the program. Additionally, the impact of customer recruitment messages designed to increase participation in a program may last for several months. However, due to the nature of homebuilding and the lead time from beginning construction to completion of a home, OG&E will need approximately twelve (12) months to properly end the PE-NHC Program.

14. A process for amending a Demand Program

No amendments will be made to the program without informing the Oklahoma Corporation Commission. OG&E will follow the rules as stated in OAC 165:35-41-5(e) regarding amendments.

15. An annual budget for each program, providing detail for program costs, and differentiating evaluation, measurement, and verification costs from other program costs

This information is contained in Exhibit MGC-1 attached to Witness Culbertson's testimony.

16. A report on how the demand portfolio is expected to affect rates, sales, average bills and total revenue requirement for each customer sector

OG&E expects the total revenue requirement for the three years of the Demand Portfolio to be \$103,158,232 for all programs. The average monthly Program Cost impact to residential customers is expected to be \$2.13 in 2016; \$2.29 in 2017; and \$2.46 in 2018.

17. A report on how the Demand Portfolio meets savings goals that may be in place at the time of filing

The total on-peak demand reduction of this portfolio is projected to be approximately 81 MW and is reflected in OG&E's Integrated Resource Plan over 2016-2018. The associated portfolio energy savings are estimated to be 240,024 MWh.

18. An estimate of expected savings in peak demand, energy use, and capacity, with location information about the source of savings if savings are not expected to be evenly distributed throughout the utility system

OG&E expects the savings provided by its Demand Program portfolio to be evenly distributed throughout the utility system.

19. Detailed explanation of the utility's request for recovery of prudently incurred program costs, recoupment and calculation of lost net revenue, and additional incentives the utility proposes it requires to make the programs workable

OG&E proposes to recover program costs, lost net revenue and performance based incentives through the Demand Program Rider ("DPR"). Bryan Scott's testimony in this cause includes calculations of these costs.

20. Identification of the demand portfolio administrator, including name, job title, business postal address, business electronic mail address, and business telephone number

B. Dean Pollock, Manager, Sales and Customer Support
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Weatherization Residential Assistance Program (“WRAP”)

This program is a continuation from the 2010 and 2013 Demand Portfolios and is designed to provide assistance to both lower and fixed income customers by engaging licensed contractors to make improvements to the thermal envelope and to inspect and tune up mechanical equipment in their homes. This work allows customers to better manage energy usage, and improve their comfort.

1. A description of the intent of the Demand Portfolio as a whole

OG&E’s 2016 Demand Portfolio is structured according to the requirements set forth in OAC 165:35-41-4(b). The Demand Portfolio includes comprehensive long-term energy efficiency programs and an education program targeted to all customer classes. The portfolio is designed to provide energy savings and demand reduction for OG&E customers, minimize long-term cost of utility service, delay the need for new generation, and enable customers to better manage their energy use.

2. A description of the intent of each Demand Program

The Weatherization Program has been designed to achieve energy savings by helping to improve the comfort and reduce energy costs for OG&E Oklahoma’s residential customers. The program provides upgrade opportunities and projects that pass pre- and post-installation health and safety reviews. The weatherization offering provides free energy efficiency upgrades for eligible homeowners, and is available to rental properties if an eligible customer lives in the home and receives approval from the property owner. The program is developed to ensure the greatest benefit to the customers and also achieve cost effective energy savings. The key aspects of the program are:

a. Customer Eligibility

OG&E residential customers interested in the program will initially reach out to be confirmed as a pre-screened eligible customer. After confirmation, the contractor will schedule an assessment of the home.

b. A comprehensive assessment of the customer’s home

Once the customer is prequalified, the contractor will schedule a thorough assessment of the home and develop a recommended action plan of weatherization upgrades for the homeowner.

c. Installation of a set of weatherization measures

The contractor and customer will review the recommended action plan for the customer’s home and decide on what upgrades that can be completed.

3. A description and quantification of the target market of each Demand Program, differentiated by customer sectors

The Weatherization Program targets all residential customers living in single-family and multi-family homes. This program will focus primary outreach efforts based on the included Market Profile data. (Exhibit MGC-1 in witness Culbertson's testimony)

OG&E residential customers must meet the following criteria to be eligible for participation in the programs:

- a. customers enrolled in OG&E's Low Income Assistance Program ("LIAP") or customers with annual income at or below \$50,000, and
- b. a homeowner or leaseholder of a single-family home, duplex, or mobile home who purchases retail electricity from OG&E on a residential tariff, or
- c. owners of multi-family units whose population rental units are 66% occupied by residential customers meeting the qualification guidelines for the program and are receiving electricity from OG&E on a residential tariff, or are certified as Hard-to-Reach per program guidelines.

The landlord and tenant must sign a "Landlord/Owner of Rental Property Agreement" to participate in the program. Additionally, any residential customers with an open flame heat source in the home are ineligible to participate in this program.

In addition to income qualifications, the following additional qualifications are also required:

- a. An assessment will be scheduled by the contractor to determine what improvements need to be performed. This data is compiled and entered into the EnerTrek[®] database, which results in a list of measures and improvements that can be cost effectively performed. Entering the information into this online database provides the contractor the opportunity to maximize the kW and kWh savings by measure and determines which measures produce the best value for dollar spent.
- b. Pre and post carbon monoxide ("CO") readings must meet the health and safety regulation specified by the DOE. The carbon monoxide testing is performed pre and post weatherization where combustion appliances are operating ("CAZ"). Unvented combustion wall/space heater as primary source of heat does not qualify (however, if appliance can be replaced with a vented wall/space heater, then weatherization can be performed).
- c. A pre and post blower door test will be performed on each qualified home, recording Cubic Feet per Minute ("CFM") readings. A duct blaster test will be performed on homes with central air (unless prohibited by factors beyond contractor control.)

OG&E will identify potential WRAP participants by the following methods:

- a. using OG&E's LIAP data
- b. OG&E will partner with social agencies to allow them to submit names of pre-qualified customers to OG&E

- c. OG&E will target marketing to all residential customer classes including, but not limited to, those with disabilities, veteran status, those who qualify for social security or other limited income security, and high energy usage residential customers. OG&E will continue to pre-qualify customers utilizing OG&E's call center.
- d. OG&E will provide basic energy conservation education to each customer participating in WRAP. This includes promoting behavioral changes, and education on how to control energy usage. A fact sheet will be provided that offers a simple, easy-to-understand list of safety and low-cost or no-cost energy saving practices which a customer may implement to further reduce energy consumption. Each customer will also be counseled by the contractor performing the improvements to inform the customer of the work completed, the purpose and value of the improvements, and other energy conservation tips.

4. A base line describing the state of the market that each Demand Program is intended to address, taking into account applicable building energy codes and appliance and equipment energy standards

A variety of resources, including the Arkansas TRM, the Texas TRM, EnergyGauge residential energy modeling software, the ENERGY STAR product website, or studies authored by the DOE were used to develop baselines for the state of the market that the WRAP program intends to address with each measure. The estimated useful life for each measure was based on California's Database for Energy Efficient Resources or the Arkansas TRM. Each of the resources are typically updated with the latest information regarding building codes and appliance and equipment energy standards.

5. A description of the barriers to investment in energy efficiency and demand response in the absence of each Demand Program and the ways each Demand Program will reduce or eliminate these barriers

- a. Limited customer knowledge on benefits of efficient products
This program is designed to provide simple educational materials and outreach opportunities to help address customer concerns and questions.
- b. Limited trade knowledge on how to participate in energy efficient programs
This program will provide program training on proper installation techniques and the benefits to customer participation.

6. A description of research and public input that contributed to the development of the content of each Demand Program

To identify programs and measures for inclusion in OG&E's Oklahoma Demand Portfolio, OG&E's TPA, CLEAResult, thoroughly reviewed relevant data sources provided by OG&E and/or obtained from public sources including the following:

- a. Customer usage and sales data

- b. Applicable reports and studies, including annual reports, evaluations & potential studies
- c. Public data mining including:
 - i. Federal Reserve Bank data
 - ii. CBECS and RECS
 - iii. EIA
 - iv. US Census Bureau

The TPA used these data to develop a Market Profile for OG&E's Oklahoma service territory intended to address two key objectives: (1) to better understand current economic trends and (2) to characterize OG&E's Residential market including prominent end-use consumption levels and customer counts. Collectively, the data contained in the Market Profile formed the context and basis for measure selection and measure characterization.

7. A report of the cost-effectiveness of each Demand Program and the Demand Portfolio, including program and measure-level supporting data which shall include, but not be limited to, cost-effectiveness screening assumptions of gross and net energy and demand savings, coincident demand factors, energy allocation factors for seasonal and for peak, off-peak, and shoulder periods, non-electric resource benefits, non-resource benefits, participation and/or measure unit numbers, inducement levels, measure cost, and other non-inducement program costs

This information is contained in Exhibit MGC-2 attached to Witness Culbertson's testimony.

8. A detailed description of the derivation of the energy, generation, and transmission and distribution avoided costs, retail cost projections, reserve margins, discount rates, and average and peak line loss assumptions used in the cost-effectiveness calculations

For avoided capacity, (1) OG&E assumes a simple cycle gas turbine as a proxy unit, with the best available technology to provide an efficient heat rate, installed at an existing station location and (2) The annualized capacity cost employs Real Economic Carrying Charge to determine Fixed Charge rate on generation unit and is escalated in continuing years due to inflation. The avoided energy is the forecasted load weighted average hourly market price for the following time periods: Summer on-peak, Summer off-peak, Winter on-peak, Winter off-peak and shoulder. OG&E does not calculate a transmission or distribution avoided cost and reserve margin is embedded in the avoided cost calculation. The avoided capacity cost information is consistent with a letter dated June 30, 2014, sent to Brandy Wreath, Director, Public Utilities Division of the Oklahoma Corporation Commission, regarding OG&E's most recently determined avoided costs. The avoided energy cost is averaged for time periods related to this Demand Program filing.

The retail cost projection used in the cost-effectiveness calculations is estimated at \$0.10 per kWh. The discount rates used for the TRC, PACT, and the RIM tests are OG&E's weighted average cost of capital 8.32%, for the PCT test, a Bank of Oklahoma consumer rate of 8.5% published on June 10, 2015 is used for the discount rate and the SCT uses a 2.87% discount rate based on the 20-year T-bill rate published June 3, 2015 at treasury.gov. The line losses used in

the cost-effectiveness tests are 8.59% and 7.76% for demand and energy respectively and are from OG&E's most recent line loss study which used 2012 as the test year.

9. A description of how each Demand Program is expected to change over its course to reflect expected changes in market penetration, technology, and other market information, as well as lessons learned

During previous implementation of the WRAP program, OG&E found that some of the program guidelines were too restrictive and created barriers to reaching our financially challenged customers. OG&E modified the program to address those issues.

OG&E has also learned that many homes require minor structural improvements or upgrades before weatherization can begin. For instance, if there are holes in a roof, attic insulation will become wet during rain storms and lose its resistive (R) value thereby rendering it ineffective. Other examples are: broken and rotted doors, build-out of combustion furnace and/or water heater closets (to ensure carbon monoxide emissions stay out of the conditioned space), proper ventilation in attic, and unvented combustion appliances. As additional measures are identified that will help improve the program performance, OG&E will implement them as part of WRAP as needed.

10. A plan for evaluation, measurement, and verification of performance and results of the demand portfolio and each program, including a plan for the use deemed savings, if applicable, or the use of statistical, if applicable, or the use of metering, where appropriate; provided that costs associated with the IM&V plan shall not exceed five percent (5%) of the total three-year Demand Portfolio budget

OG&E will verify the accuracy and complete installation of measures to ensure projects meet program standards. A sample of participant homes will receive QA/QC inspections from OG&E or third party QA/QC contractors to ensure installation is complete and inputs to energy and demand savings calculations are properly recorded.

OG&E will contract with a third party, independent entity to perform evaluation, measurement, and verification activities. Measurement and verification of WRAP will rely on multiple approaches. Engineering review, billing analysis, and on-site inspection may all be used. The evaluator will use data collected for a sample of program participants to provide statistically valid estimates of net annual energy (kWh) and peak demand (kW) savings estimates at the program level.

In addition to the activities described above for determining program impacts on energy consumption and peak demand, the evaluator will conduct surveys with program participants and trade allies to assess program processes, customer decision-making, and customer feedback. Interviews with program staff will also be conducted to provide input regarding program operations and any potential areas for program improvement.

11. A plan for evaluation of the market effects of each Demand Program or applicable group of programs

OG&E performs surveys to identify a customer's experience interacting with OG&E and their likelihood to refer OG&E to others. The surveys are sent to many customers who participate in OG&E's demand side management programs. The results of these surveys are used to evaluate the market effects of each OG&E program and identify ways to improve the portfolio of programs.

Additionally, OG&E uses the net promoter score test to identify each program's impact on customer loyalty. The net promoter score looks at the number of customers who promote OG&E by identifying those customers who rate OG&E a 9 or 10 on a scale of 1-10 and compare that number to the number of customers who rate OG&E a 6 or below on a scale of 1-10. The net promoter score is designed to be a higher level of ranking above the traditional customer satisfaction test because it measures the number of customers that promote OG&E programs to others versus those that will speak negatively of OG&E programs to others.

12. A plan for evaluation of administration and implementation of each Demand Program or applicable group of programs

OG&E is the program administrator for WRAP. OG&E's program management will be responsible for the day to day operations, coordination of the program and contractor(s), and perform a sample of post inspections on completed homes. Based on OG&E's experience with the WRAP Program, OG&E believes it can continue to effectively monitor and improve this program.

The online data tracking system used for WRAP is EnerTrek[®], developed specifically for the various Programs implemented by electric and gas utilities. This database provides the contractor an invaluable tool in which measures can be entered online and immediate kW and kWh savings and benefit-cost are shown. This allows the contractor to optimize energy and demand savings by selecting the measures with the greatest kWh savings. OG&E plans to continue its business relationship with Frontier Associates to utilize their EnerTrek[®] weatherization platform and expertise.

13. A plan for ending a Demand Program, if applicable

In each agreement with its contractors, OG&E has a 90-day term notice of termination provision to give the supplier adequate time to finish providing services for all of the participants who have been recruited to the program. Additionally, the impact of customer recruitment messages designed to increase participation in a program may last for several months. As a result, OG&E will need approximately three (3) months to end WRAP.

14. A process for amending a Demand Program

No amendments will be made to the program without informing the Oklahoma Corporation Commission. OG&E will follow the rules as stated in OAC 165:35-41-5(e) regarding amendments.

15. An annual budget for each Demand Program, providing detail for program costs, and differentiating evaluation, measurement, and verification costs from other program costs

This information is contained in Exhibit MGC-1 attached to Witness Culbertson's testimony.

16. A report on how the demand portfolio is expected to affect rates, sales, average bills and total revenue requirement for each customer sector

OG&E expects the total revenue requirement for the three years of the Demand Portfolio to be \$103,158,232 for all programs. The average monthly Program Cost impact to residential customers is expected to be \$2.13 in 2016; \$2.29 in 2017; and \$2.46 in 2018.

17. A report on how the Demand Portfolio meets savings goals that may be in place at the time of filing

The total on-peak demand reduction of this portfolio is projected to be approximately 81 MW and is reflected in OG&E's Integrated Resource Plan over 2016-2018. The associated portfolio energy savings are estimated to be 240,024 MWh.

18. An estimate of expected savings in peak demand, energy use, and capacity, with location information about the source of savings if savings are not expected to be evenly distributed throughout the utility system

OG&E expects the savings provided by its Demand Program portfolio to be evenly distributed throughout the utility system.

19. Detailed explanation of the utility's request for recovery of prudently incurred program costs, recoupment and calculation of lost net revenue, and additional incentives the utility proposes it requires to make the programs workable

OG&E proposes to recover program costs, lost net revenue and performance based incentives through the Demand Program Rider ("DPR"). Bryan Scott's testimony in this cause includes calculations of these costs.

20. Identification of the demand portfolio administrator, including name, job title, business postal address, business electronic mail address, and business telephone number

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Commercial Energy Efficiency Program (“CEEP”)

While the CEEP has been offered in previous program portfolios, the 2016-2018 CEEP is being expanded and revised to include a more comprehensive commercial customer approach.

1. A description of the intent of the Demand Portfolio as a whole

OG&E’s 2016 Demand Portfolio is structured according to the requirements set forth in OAC 165:35-41-4(b). The Demand Portfolio includes comprehensive long-term energy efficiency programs and an education program targeted to all customer classes. The portfolio is designed to provide energy savings and demand reduction for OG&E customers, minimize long-term cost of utility service, delay the need for new generation, and enable customers to better manage their energy use.

2. A description of the intent of each Demand Program

a. Commercial and Industrial Solutions (“C&I”) Component

C&I Solutions provides technical assistance to participants with the intent to quantify the savings and value of energy efficiency measures and process improvements. The program offers a wide range of performance measures and allows the participant to propose custom projects to address their specific energy efficiency goals. Inducements for performance and custom measures are available to help customers achieve their savings goals and overcome the first-cost barriers of investing in energy efficiency.

The program will offer direct installation of low-cost energy efficiency measures, and both a performance and custom path for customers to participate in the program. The performance program will provide inducements on a per unit basis for deemed savings measures installed by qualified contractors. While the custom program will assist customers in identifying efficiency opportunities, analyze associated costs and savings and offer inducements developed to correspond to the savings achieved through the installation of custom measures. Technical assistance will be a key component of both to help customers comprehensively evaluate energy efficiency opportunities.

Custom energy efficiency measures will be designed when no performance offerings are available to achieve the participant’s goals. These projects may include retro-commissioning, process improvements, and other system-level custom measures or projects involving unique equipment not part of the performance offerings. Program staff will pre-approve projects for customer and measure eligibility and provide review as needed to verify measures savings. Assistance from the program’s technical staff will be available to facilitate the implementation of custom projects.

Education and training for contractors will be offered to promote program awareness and ensure they are operating with the program guidelines.

b. Educational and Governmental Component

This offering also includes an outreach channel targeted at the School and Governmental sectors of OG&E's customer base. These customers are eligible to participate in the program and a separate intake channel will be established to ensure the proper level of attention is available to address this segment's unique needs.

The program will provide project management resources that will assist in organizing the technical resources required for identifying and implementing projects, and also provide support in securing the necessary inducements and finances to cover project costs. This customer centric approach will help to alleviate the clients resource needs and ensure projects continue to move through to completion.

c. Small Business Solutions Component

The objective of the Small Business Solutions offering is to promote energy saving opportunities by providing inducements to small businesses to make energy efficient upgrades to their establishment. By offering financial rebates and educational opportunities, the program will work to generate significant cost-effective energy savings for OG&E's small business customers.

Small Business Solutions offers facility walkthroughs, direct installation of energy efficiency measures and inducements for a suite of energy efficiency upgrades. The program will also provide educational opportunities for small business owners to become more informed on the positive effect energy efficient decisions have on their operations.

Education and training opportunities will also be provided for contractors, to promote program awareness and increase participation. Contractors actively participating in the program will be trained on program inducements, processes, requirements, and eligible measures. OG&E or the third party implementer will recruit customers primarily through direct outreach to trained contractors, program marketing and outreach activities, and referrals from OG&E's managed account representatives.

3. A description and quantification of the target market of each Demand Program, differentiated by customer sectors

The C&I Solutions offering is targeted at all commercial, industrial, schools and governmental customers within OG&E's Oklahoma service territory. The Small Business Solutions program will target OG&E commercial customers with less than 100 kW billed demand.

4. A base line describing the state of the market that each Demand Program is intended to address, taking into account applicable building energy codes and appliance and equipment energy standards

A variety of resources, including the Arkansas TRM, the Texas TRM, EnergyGauge residential energy modeling software, the ENERGY STAR product website, or studies authored by the DOE were used to develop baselines for the state of the market that the CEEP program intends to address with each measure. The estimated useful life for each measure was based on California's Database for Energy Efficient Resources or the Arkansas TRM. Each of the

resources are typically updated with the latest information regarding building codes and appliance and equipment energy standards.

5. A description of the barriers to investment in energy efficiency and demand response in the absence of each program and the ways each Demand Program will reduce or eliminate these barriers

C&I Solutions

- a. C&I business have limited available capital for improvements and additional prioritized projects that compete with energy efficiency projects for funding.

This program will provide training to contractors regarding financial benefits that result from demand and energy savings. It will also provide financial analysis and third party assessments to demonstrate the value of investing in energy efficiency. This will allow for more informed decisions to be made while prioritizing the best use of the improvement funds available.

- b. Due to engineering and technical skills required, project lead, installation and verification times can conflict with program dates and deadlines.

This program will work closely with clients to track project status and provide support to keep projects moving forward.

- c. Trade allies and contractors have difficulty identifying custom projects due to lack of knowledge and the majority of identified projects are past the design phase which is too late to affect efficiency rating.

This program will offer trade ally training and education on how to identify potential custom projects. This approach will allow the program to identify projects earlier and be better able to incorporate energy efficient upgrades in the work.

- d. Projects typically do not happen until equipment breaks and needs to be replaced immediately to avoid production delays.

The program will offer training to equipment vendors, distributors, and contractors on educating customers of the energy and related benefits they receive when choosing higher efficiency equipment. This will allow them to better inform business decision makers when the replacement discussion occurs.

Small Business Solutions

- a. Small business owners lack awareness of energy efficiency and the associated benefits.

The program will perform outreach to eligible small business owners through trusted information channels. It will also provide small business owners with an inspection survey report that includes recommendations for energy efficiency measure upgrades and the associated cost and energy savings. These efforts will help to inform the small business owner and allow them to make more knowledgeable decisions.

- b. Lack of contractor interest and time to devote to small business projects that don't align with their sales processes.

The program will proactively reach out to contractors, vendors, and customers to inform them of available inducements to support upgrades. It will also create flexible participation processes that allow for better alignment with a contractor's current operations.

- c. Small businesses have limited available capital for improvements and/or additional prioritized projects that compete with energy efficiency projects for funding.

This program will create channels that permit contractors to receive inducement payments, which allows them to provide the cost savings upfront and reduce initial cash outlay for businesses. It is also designed to provide direct install of low cost measures and increased inducements for higher cost energy efficiency measures.

- d. Contractors lack knowledge about or benefits of, energy efficient equipment.

Ongoing contractor training will be conducted as part of maintaining the contractor network, to ensure the program receives ongoing feedback from contractors and maintains high participant satisfaction.

6. A description of research and public input that contributed to the development of the content of each Demand Program

To identify programs and measures for inclusion in OG&E's Oklahoma Demand Portfolio, OG&E's TPA, CLEAResult, thoroughly reviewed relevant data sources provided by OG&E and/ or obtained from public sources including the following:

- a. Customer usage and sales data
- b. Applicable reports and studies, including annual reports, evaluations & potential studies
- c. Public data mining including:
 - i. Federal Reserve Bank data
 - ii. CBECS and RECS
 - iii. EIA
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The TPA used these data to develop a Market Profile for OG&E's Oklahoma service territory intended to address two key objectives: (1) to better understand current economic trends and (2) to characterize OG&E's Commercial and Industrial market including prominent end-use consumption levels and customer counts. Collectively, the data contained in the Market Profile formed the context and basis for measure selection and measure characterization.

7. A report of the cost-effectiveness of each Demand Program and the Demand Portfolio, including program and measure-level supporting data which shall include, but not be limited to, cost-effectiveness screening assumptions of gross and net energy and demand savings, coincident demand factors, energy allocation factors for seasonal and for peak, off-peak, and shoulder periods, non-electric resource benefits, non-resource benefits,

participation and/or measure unit numbers, inducement levels, measure cost, and other non-inducement program costs

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8. A detailed description of the derivation of the energy, generation, and transmission and distribution avoided costs, retail cost projections, reserve margins, discount rates, and average and peak line loss assumptions used in the cost-effectiveness calculations

For avoided capacity, (1) OG&E assumes a simple cycle gas turbine as a proxy unit, with the best available technology to provide an efficient heat rate, installed at an existing station location and (2) The annualized capacity cost employs Real Economic Carrying Charge to determine Fixed Charge rate on generation unit and is escalated in continuing years due to inflation. The avoided energy is the forecasted load weighted average hourly market price for the following time periods: Summer on-peak, Summer off-peak, Winter on-peak, Winter off-peak and shoulder. OG&E does not calculate a transmission or distribution avoided cost and reserve margin is embedded in the avoided cost calculation. The avoided capacity cost information is consistent with a letter dated June 30, 2014, sent to Brandy Wreath, Director, Public Utilities Division of the Oklahoma Corporation Commission, regarding OG&E's most recently determined avoided costs. The avoided energy cost is averaged for time periods related to this Demand Program filing.

The retail cost projection used in the cost-effectiveness calculations is estimated at \$0.10 per kWh. The discount rates used for the TRC, PACT, and the RIM tests are OG&E's weighted average cost of capital 8.32%, for the PCT test, a Bank of Oklahoma consumer rate of 8.5% published on June 10, 2015 is used for the discount rate and the SCT uses a 2.87% discount rate based on the 20-year T-bill rate published June 3, 2015 at treasury.gov. The line losses used in the cost-effectiveness tests are 8.59% and 7.76% for demand and energy respectively and are from OG&E's most recent line loss study which used 2012 as the test year.

9. A description of how each Demand Program is expected to change over its course to reflect expected changes in market penetration, technology, and other market information, as well as lessons learned

Customer needs are different according to type of customer, rate class of customer (GS-PL-LPL, etc.), and also by type of machinery, operation and operational staff. CEEP has the capability and flexibility to meet the individual needs that arise from the multiple and various opportunities that can be presented.

10. A plan for evaluation, measurement, and verification of performance and results of the demand portfolio and each program, including a plan for the use deemed savings, if applicable, or the use of statistical, if applicable, or the use of metering, where appropriate; provided that costs associated with the EM&V plan shall not exceed five percent (5%) of the total three-year Demand Portfolio budget

OG&E will verify the accuracy and complete installation of measures to ensure projects meet program standards. A sample of participant facilities will receive QA/QC inspections from OG&E staff or third party QA/QC contractors to ensure installation is complete and inputs to energy and demand savings calculations are properly recorded.

OG&E will contract with a third party, independent entity to perform evaluation, measurement, and verification activities. Measurement and verification of the C&I Solutions program will rely on engineering review and on-site verification for a sample of completed projects. The sample will be designed to allow for an analysis of program level gross impacts with $\pm 10\%$ relative precision at the 90% confidence level. For projects that are sampled, the evaluator will conduct an engineering review of all project documentation and savings estimates.

The evaluator will check for the appropriate use of deemed savings values, engineering algorithms, building simulation modeling, and/or billing analysis. Projects that receive inducement through the performance program track will likely involve reviewing deemed savings and engineering algorithms. Projects receiving inducement through the custom program track may require more project specific analysis such as building simulation or billing analysis, depending on the energy efficiency measures installed.

On-site M&V visits will also be used to verify measure installation, measure counts, facility characteristics, and any specific inputs to savings calculations. During the on-site visits data will be collected through interviews with facility staff; review of any pertinent documents, records, or equipment schedules; visual inspection of measures and measure attributes; and, where appropriate, direct measurement of energy usage or operating characteristics relevant to the project energy savings calculations. Data collected on-site will be used to verify or update assumptions used for reported project savings.

For the Small Business Solutions Component, on-site M&V visits will also be conducted for the sampled projects. The sample for the Small Business Solutions Component will be stratified by installing contractor. For small business programs, technologies utilized are less varied than seen in commercial and industrial channels, and possible issues pertaining to gross realization tend to derive more from the installing contractor in question rather than the energy savings or technology installed. The on-site visits will be used to verify measure installation, measure counts, facility characteristics, and any specific inputs to deemed or partially deemed savings calculations. During the on-site visits data will be collected through interviews with facility staff; review of any pertinent documents, records, or equipment schedules; visual inspection of measures and measure attributes; and, where appropriate, direct measurement of energy usage or operating characteristics relevant to the project energy savings calculations. Data collected on-site will be used to verify or update assumptions used for reported project savings.

In addition to the activities described above for determining program impacts on energy consumption and peak demand, the evaluator will conduct surveys with program participants and trade allies to assess program processes, customer decision-making, and customer feedback. Interviews with program staff will also be conducted to provide input regarding program operations and any potential areas for program improvement.

11. A plan for evaluation of the market effects of each Demand Program or applicable group of programs

OG&E performs surveys to identify a customer's experience interacting with OG&E and their likelihood to refer OG&E to others. The surveys are sent to many customers who participate in OG&E's demand side management programs. The results of these surveys are used to evaluate the market effects of each OG&E program and identify ways to improve the portfolio of programs.

Additionally, OG&E uses the net promoter score test to identify each program's impact on customer loyalty. The net promoter score looks at the number of customers who promote OG&E by identifying those customers who rate OG&E a 9 or 10 on a scale of 1-10 and compare that number to the number of customers who rate OG&E a 6 or below on a scale of 1-10. The net promoter score is designed to be a higher level of ranking above the traditional customer satisfaction test because it measures the number of customers that promote OG&E programs to others versus those that will speak negatively of OG&E programs to others.

12. A plan for evaluation of administration and implementation of each Demand Program or applicable group of programs

OG&E will have dedicated program management that will be responsible for the day-to-day operations and coordination of the program and its contractors. Additionally, OG&E has a formal process to review the administration and the efficiency of each program. The process includes a monthly review of the program's performance, attainment of participation goals, and maintenance of budget. When there are administration concerns, desired changes, or implementation needs, the program manager follows the formal process and requests assistance from the Management team.

13. A plan for ending a Demand Program, if applicable

In each agreement with its contractors, OG&E has a 90-day term notice of termination provision to give the supplier adequate time to finish providing services for all of the participants who have been recruited to the program. Additionally, the impact of customer recruitment messages designed to increase participation in a program may last for several months. As a result, OG&E will need approximately three (3) months to end the CEEP program.

14. A process for amending a Demand Program

No amendments will be made to the program without informing the Oklahoma Corporation Commission. OG&E will follow the rules as stated in OAC 165:35-41-5(e) regarding amendments.

15. An annual budget for each Demand Program, providing detail for program costs, and differentiating evaluation, measurement, and verification costs from other program costs

This information is contained in Exhibit MGC-1 attached to Witness Culbertson's testimony.

16. A report on how the demand portfolio is expected to affect rates, sales, average bills and total revenue requirement for each customer sector

OG&E expects the total revenue requirement for the three years of the Demand Portfolio to be \$103,158,232 for all programs. The average monthly Program Cost impact to residential customers is expected to be \$2.13 in 2016; \$2.29 in 2017; and \$2.46 in 2018.

17. A report on how the Demand Portfolio meets savings goals that may be in place at the time of filing

The total on-peak demand reduction of this portfolio is projected to be approximately 81 MW and is reflected in OG&E's Integrated Resource Plan over 2016-2018. The associated portfolio energy savings are estimated to be 240,024 MWh.

18. An estimate of expected savings in peak demand, energy use, and capacity, with location information about the source of savings if savings are not expected to be evenly distributed throughout the utility system

OG&E expects the savings provided by its Demand Program portfolio to be evenly distributed throughout the utility system.

19. Detailed explanation of the utility's request for recovery of prudently incurred program costs, recoupment and calculation of lost net revenue, and additional incentives the utility proposes it requires to make the programs workable

OG&E proposes to recover program costs, lost net revenue and performance based incentives through the Demand Program Rider ("DPR"). Bryan Scott's testimony in this cause includes calculations of these costs.

20. Identification of the demand portfolio administrator, including name, job title, business postal address, business electronic mail address, and business telephone number

B. Dean Pollock, Manager, Sales and Customer Support
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Integrated Volt Var Control Program (IVVC)

This program focuses on the active control of the distribution system reactive power to minimize energy losses and active control of voltage to ensure acceptable customer voltage while reducing demand during peak periods.

1. A description of the intent of the Demand Portfolio as a whole

OG&E's 2016 Demand Portfolio is structured according to the requirements set forth in OAC 165:35-41-4(b). The Demand Portfolio includes comprehensive long-term energy efficiency programs and an education program targeted to all customer classes. The portfolio is designed to provide energy savings and demand reduction for OG&E customers, minimize long-term cost of utility service, delay the need for new generation, and enable customers to better manage their energy use.

2. A description of the intent of each Demand Program

The IVVC program allows the Company to improve efficiency and reduce demand during peak times. This program is an extension of a series of programs tested and implemented by the Company since announcing its goal to avoid constructing incremental fossil-fueled generation until the year 2020. The deferral of additional generation requirements resulting from this program will provide savings for all OG&E customers. By the year 2020, the Company's goal is that IVVC will contribute to the Company's deferral goals with an estimated additional 82 MW of demand reduction potential. This program represents cost-effective investments that leverage the information gained from testing previously conducted by OG&E and most importantly, the smart grid infrastructure investments approved by the Commission in 2010 and are already in place.

The IVVC Program is a system of devices, controls, software and communications products used to manage OG&E's distribution system reactive power flow and voltage level. This technology is used to minimize losses and reduce energy demand during peak periods, while ensuring acceptable customer voltage levels. The IVVC Program will be applied to 60 circuits in 2016 and 72 circuits in 2017. The IVVC infrastructure can be installed on both 12.47kV and 34.5kV distribution circuits, and includes several key components as follows:

- a. Capacitor bank controllers
- b. Load Tap Changer ("LTC") controllers
- c. Communication network
- d. Volt Var Optimization ("VVO") application software

In most cases, capacitor controllers with radio communications are installed on existing capacitor banks and new capacitors are installed if loss minimization is required beyond the level provided by existing capacitor banks. Additionally, LTC Controls are installed or upgraded to support reliable voltage regulation. The VVO software automatically controls these devices to optimize voltage and reactive power flow.

The IVVC Program will also be operated during non-peak periods; VVO will normally operate in loss reduction mode. In loss reduction mode, VVO compensates for inefficiencies caused by reactive loads such as electric motors. As a result, energy loss reductions (i.e. energy savings) are expected to be realized during non-peak periods. VVO will be placed in demand reduction or combined loss/demand reduction mode when needed to help reduce system peak energy demand. Demand reduction mode reduces voltage in order to achieve a corresponding reduction in peak energy consumption. Based on study results achieved to date, a peak demand reduction of approximately 2% has been achieved across the circuits on which this technology has been deployed.

3. A description and quantification of the target market of each Demand Program, differentiated by customer sectors

The IVVC program is targeted on a distribution circuit basis, rather than strictly by customer sector. IVVC target circuits generally have a substantial residential customer component in order to achieve a measurable demand reduction to the voltage regulation component of IVVC. (The electrical characteristics of industrial loads tend to be less responsive to voltage regulation intended to reduce demand.)

A survey of customer meter voltages extracted from the AMI system is also used to determine the target market (distribution feeders) for IVVC. Feeders with customer meter voltages that allow greater scope for voltage regulation to reduce demand are selected over equivalent circuits with voltages providing less scope for similar voltage regulation.

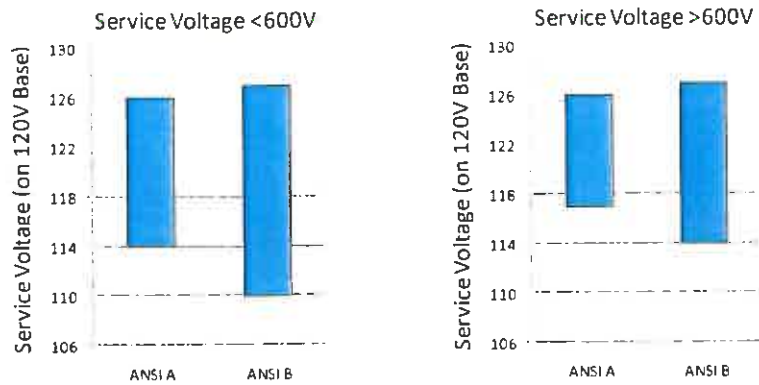
Communication coverage is an additional factor that is considered in the selection of target customers (distribution feeders). Distribution feeders with capacitor locations with “good” radio communication coverage are generally targeted to minimize any potential costs that might be associated with additional communication equipment.

Finally, the architecture of the OG&E distribution system is such that a single load tap changing transformer typically feeds two distribution feeders. As such, the target market (distribution feeders) for IVVC implementation must be selected in pairs fed from the same load tap changing transformer.

4. A base line describing the state of the market that each Demand Program is intended to address, taking into account applicable building energy codes and appliance and equipment energy standards

Presently, most capacitor bank controls and load tap changer controls operate autonomously via a control local at the field device. Most existing load tap changer positions can be monitored and controlled remotely via distribution system operator intervention, if required. This local autonomous control is sufficient to manage customer voltage within the American National Standard ANSI C84.1-2006 range A of acceptable service voltages.

Table IVVC-1 (Integrated Volt Var Control Service Voltage)



However, managing voltage to a narrower bandwidth (but still within range A as defined by the standard C84.1-2006) can be achieved with the Volt Var Optimization application in DMS. It is the principle of managing the distribution feeder voltage to a narrower bandwidth that underpins the demand reduction portion of IVVC. By managing the voltage to a narrower bandwidth, more uniform voltage is provided to customers across the feeder, with customers that earlier saw voltages among the higher on the distribution feeder (for example, those customers reduced to a level more consistent with those seen throughout the remainder of the feeder).

Additionally, retail customer appliances and electrical equipment is generally rated for operation at voltages less than the service voltage standards outlined above to allow for potential voltage drop that may occur in household wiring. This additional margin helps ensure satisfactory equipment operation as voltage is managed to a narrower bandwidth.

5. A description of the barriers to investment in energy efficiency and demand response in the absence of each Demand Program and the ways each Demand Program will reduce or eliminate these barriers

The key constraint on IVVC demand reduction is the lowest customer meter voltages served from a substation transformer bank, which limits the scope for demand reduction across the remaining customers served from the transformer bank. The IVVC program carefully assesses options to improve constraining customer voltages, and implements improvements to customer voltages through service transformer replacement, secondary replacement or phase balancing achieving greater demand reduction for all customers served from the transformer bank.

6. A description of research and public input that contributed to the development of the content of each Demand Program

The IVVC program is based on industry service standards for voltage (ANSI C84.1-2006), research by industry vendors and historical utility experience with conservation voltage reduction (CVR) programs. The fundamental system components (capacitor controllers and load tap changer controllers) that enable IVVC have historically been deployed in non-remotely controlled form in the past. The recent availability of more affordable communication to these

field locations combined with the increases in information technology that have enabled modern Distribution Management Systems that have allowed implementation of IVVC systems.

7. A report of the cost-effectiveness of each Demand Program and the demand portfolio, including program and measure-level supporting data which shall include, but not be limited to, cost-effectiveness screening assumptions of gross and net energy and demand savings, coincident demand factors, energy allocation factors for seasonal and for peak, off-peak, and shoulder periods, non-electric resource benefits, non-resource benefits, participation and/or measure unit numbers, inducement levels, measure cost, and other non-inducement program costs

This information is contained in Exhibit MGC-2 attached to Witness Culbertson's testimony.

8. A detailed description of the derivation of the energy, generation, and transmission and distribution avoided costs, retail cost projections, reserve margins, discount rates, and average and peak line loss assumptions used in the cost-effectiveness calculations

For avoided capacity, (1) OG&E assumes a simple cycle gas turbine as a proxy unit, with the best available technology to provide an efficient heat rate, installed at an existing station location and (2) The annualized capacity cost employs Real Economic Carrying Charge to determine Fixed Charge rate on generation unit and is escalated in continuing years due to inflation. The avoided energy is the forecasted load weighted average hourly market price for the following time periods: Summer on-peak, Summer off-peak, Winter on-peak, Winter off-peak and shoulder. OG&E does not calculate a transmission or distribution avoided cost and reserve margin is embedded in the avoided cost calculation. The avoided capacity cost information is consistent with a letter dated June 30, 2014, sent to Brandy Wreath, Director, Public Utilities Division of the Oklahoma Corporation Commission, regarding OG&E's most recently determined avoided costs. The avoided energy cost is averaged for time periods related to this Demand Program filing.

The retail cost projection used in the cost-effectiveness calculations is estimated at \$0.10 per kWh. The discount rates used for the TRC, PACT, and the RIM tests are OG&E's weighted average cost of capital 8.32%, for the PCT test, a Bank of Oklahoma consumer rate of 8.5% published on June 10, 2015 is used for the discount rate and the SCT uses a 2.87% discount rate based on the 20-year T-bill rate published June 3, 2015 at treasury.gov. The line losses used in the cost-effectiveness tests are 8.59% and 7.76% for demand and energy respectively and are from OG&E's most recent line loss study which used 2012 as the test year.

9. A description of how each Demand Program is expected to change over its course to reflect expected changes in market penetration, technology, and other market information, as well as lessons learned

The IVVC program began as part of the smart grid rider during the 2010-2012 timeframe and continued in the 2013-2015 demand program portfolio resulting in substantial demand and energy savings on the IVVC target circuits.

Table IVVC-3 (Integrated Volt Var Control Circuit Deployment)

DA Equipment Deployment Levels	2012*	2013	2014	2015	2016	2017	Total Over Multi-year Deployment
Circuit Deployment for IVVC	98	49	62	63	60	72	400

*Circuits deployed through 2012

The increasing deployment will result in a corresponding increase in the available demand reduction. Based on results achieved to date, the demand reduction on the order of approximately 2% of peak loads has been achieved across the target customers (circuits). The potential demand reduction of future target customers (feeders) may increase as the target selection is informed by additional data that will allow greater scope for voltage regulation.

The selection of target customers (circuits) is expected to evolve as OG&E gains additional experience with IVVC, to support selection of the circuits with the greatest potential peak demand reduction. The parameters informing selection of target customers (feeders) has evolved to include consideration of AMI meter voltages to provide scope for additional voltage regulation. This additional consideration is expected to increase the demand reduction percentage available through IVVC.

10. A plan for evaluation, measurement, and verification of performance and results of the demand portfolio and each program, including a plan for the use deemed savings, if applicable, or the use of statistical, if applicable, or the use of metering, where appropriate; provided that costs associated with the EM&V plan shall not exceed five percent (5%) of the total three-year Demand Portfolio budget

Existing protocols for measuring and verifying savings from voltage reduction have been based on using circuit-level data. Much of the early work on voltage reduction was performed in the Pacific Northwest, the Northwest Regional Technical Forum ("RTF") managed a process to prepare a protocol for estimating savings from automated Conservation Voltage Reduction ("CVR", analogous to IVVC). This protocol (Automated CVR Protocol No. 1) was approved by the RTF in 2004. The RTF approved a second protocol (Simplified Voltage Optimization Protocol) in 2010.

With the RTF protocols, savings resulting from voltage reduction are estimated by multiplying (1) an IVVC factor (or CVR factor) that reflects the estimated relationship between energy reduction and (2) a change in voltage level. For application of the protocols in the Pacific

Northwest, load research data were used to develop a series of lookup tables with IVVC factor (or CVR factor) values for participating utilities. However, these IVVC values depend on load and weather conditions and end-use equipment saturations (e.g., air conditioning use) that are specific to the Pacific Northwest.

An enhanced version of the RTF protocols has been developed by an IVVC working group in Pennsylvania. Using data collected for utility distribution circuits in Pennsylvania, the working group developed a Conservation Voltage Reduction (CVR) Custom Measurement Protocol for Demand Reduction. (Revised version was published September 21, 2011.)

Both the RTF and Pennsylvania protocols are based on collecting and analyzing circuit-level data. However, OG&E is also interested in having estimates of verified savings at the customer meter that result from the implementation of IVVC. Such estimates would facilitate OG&E claiming IVVC savings in the same manner as traditional EE programs.

Energy savings and demand reduction for IVVC will be calculated through evaluation of data from a mid-summer test period. This evaluation will be completed on a sample of circuits using a day-on-day-off testing approach, through which each sampled circuit will be cycled between IVVC mode by day during the eight-week trial period. The evaluators will develop a statistical / regression based model that will identify energy savings and demand reduction on the sample circuits during the test period. The energy savings and demand reduction will be scaled appropriately by system T&D losses.

Further, the OG&E will provide the evaluators the data needed to calculate the demand reduction achieved during a system peak event using the statistical model developed to assess energy savings and demand reduction associated with such an event. This calculation will be performed in the same manner as the energy savings and demand reduction calculations that will result from the testing noted above, except limited to the demand response event hours.

The savings calculated by this method will be parsed out to the residential, commercial, and industrial sectors based off of existing market data (which may include OG&E's FERC Form 1 or other documentation on the market share by sector). The share of savings attributable to the low income segment of OG&E's residential population will be assessed via existing demographic information (American Community Survey, LIHEAP registration, or OG&E's market potential study). The evaluation, measurement and verification of the performance and results of IVVC will be performed in two parts, the first dealing with the demand reduction and the second having to do with the loss minimization/savings.

Demand Reduction EM&V Discussion

OG&E has developed a detailed, sampling based process for evaluation of the demand impact of the IVVC program to enable efficient evaluation of the large number of IVVC circuits. The sampling approach also supported performance evaluation during operation, allowing identification and remediation of malfunctioning or failed equipment. In the sampling based EM&V approach, the demand reduction is computed from the product of three key variables: the percent voltage reduction, the CVR factor and the pre-IVVC demand. This formulation for computation is widely used and included in the CVR and IVVC savings protocols noted above. The EM&V approach is measurement

data driven, utilizing feeder measurements to determine each of the above noted variables that define IVVC performance.

Measurements will be recorded and archived to provide a record of performance of the IVVC system. Additionally, the status of field devices is monitored via the DMS system to ensure operational integrity and availability. Finally, ongoing verification to ensure performance of IVVC is anticipated to accommodate load increases/decreases and circuit reconfigurations. This approach ensures that the targeted demand reductions can be achieved, while providing ongoing verification of performance.

Loss Minimization EM&V Discussion

The loss minimization component of IVVC will be evaluated through analytical simulations of the subject IVVC customer circuits. The inability to directly measure losses and the potential for loss impacts to be obscured by demand impacts necessitates an analytical simulation approach.

In order to capture the off peak energy savings from loss minimization, simulations across the entire range of expected load levels for each circuit are required. The range of expected load levels are divided into five percent bands to provide acceptable granularity, while limiting the number of simulations required.

11. A plan for evaluation of the market effects of each Demand Program or applicable group of programs

The measurement and verification of performance outlined above will be used as a baseline impact for extension to the evaluation of market effects of the program. The impact measure/evaluation would be based on the peak load demand and energy reduction achieved through the IVVC program. The market effects would be evaluated based on the potential purchased/generated power displaced through the demand reduction associated with IVVC.

12. A plan for evaluation of administration and implementation of each Demand Program or applicable group of programs

The evaluation, measurement and verification of the performance and results of IVVC will be performed in two parts, the first dealing with the demand reduction and the second having to do with the loss minimization/savings.

a. Demand Reduction EM&V Discussion

OG&E has developed a detailed, statistically based process for evaluation of the demand impact of the IVVC program. This process selects “model” or “proxy” days during which the IVVC was “off” based on statistical similarity to days when IVVC was “on”. A multi-day sample is used to evaluate the impact of IVVC on each load tap changer circuit pair, with a proxy day being selected for each “on” day for evaluation. The multi-day sample provides both an expected impact as well as bounds to the range of potential demand reduction impacts that may be achieved from IVVC implementation.

Measurements will be recorded and archived to provide a record of performance of the IVVC system against which the selected proxy days can be compared to evaluate performance. Additionally, the status of field devices is monitored via the DMS system to ensure operational integrity and availability.

Ongoing verification to ensure performance of IVVC is anticipated to accommodate load increases/decreases and circuit reconfigurations. A rotating fraction of the IVVC load tap changer circuit pairs will undergo verification at any given time during summer periods to provide verification of performance and support adjustment of control parameters to ensure effectiveness of the program. This approach ensures that the targeted demand reductions can be achieved, while providing ongoing verification of performance.

b. Loss Minimization EM&V Discussion

The loss minimization component of IVVC will be evaluated through analytical simulations of the subject IVVC customer circuits. The inability to directly measure losses and the potential for loss impacts to be obscured by demand impacts necessitates an analytical simulation approach.

In order to capture the off-peak energy savings from loss minimization, simulations across the entire range of expected load levels for each circuit are required. The range of expected load levels are divided into five percent bands to provide acceptable granularity, while limiting the number of simulations required.

13. A plan for ending a Demand Program, if applicable

Should the program be terminated, the capacitor controllers and LTC controllers would revert to local autonomous control. The controllers being installed support the reversion to local autonomous control. The reversion would require update of settings within the load tap changer controls that would require a brief site visit to enter settings for the reversion. The capacitor controllers are expected to automatically revert to settings that would support operation without the IVVC program in operation. Any settings changes that may be required can be accomplished remotely for the capacitor controllers.

14. A process for amending a Demand Program

No amendments will be made to the program without informing the Oklahoma Corporation Commission. OG&E will follow the rules as stated in OAC 165:35-41-5(e) regarding amendments.

15. An annual budget for each Demand Program, providing detail for program costs, and differentiating evaluation, measurement, and verification costs from other program costs

The cost by category and revenue requirement is contained in Exhibit MGC-1 attached to Witness Culbertson's testimony.

16. A report on how the demand portfolio is expected to affect rates, sales, average bills and total revenue requirement for each customer sector

OG&E expects the total revenue requirement for the three years of the Demand Portfolio to be \$103,158,232 for all programs. The average monthly Program Cost impact to residential customers is expected to be \$2.13 in 2016; \$2.29 in 2017; and \$2.46 in 2018.

17. A report on how the Demand Portfolio meets savings goals that may be in place at the time of filing

The total on-peak demand reduction of this portfolio is projected to be approximately 81 MW and is reflected in OG&E's Integrated Resource Plan over 2016-2018. The associated portfolio energy savings are estimated to be 240,024 MWh.

18. An estimate of expected savings in peak demand, energy use, and capacity, with location information about the source of savings if savings are not expected to be evenly distributed throughout the utility system

OG&E expects the savings provided by its Demand Program portfolio to be evenly distributed throughout the utility system.

19. Detailed explanation of the utility's request for recovery of prudently incurred program costs, recoupment and calculation of lost net revenue, and additional incentives the utility proposes it requires to make the programs workable

OG&E proposes to recover program costs, lost net revenue and performance based incentives through the Demand Program Rider ("DPR"). Bryan Scott's testimony in this cause includes calculations of these costs.

20. Identification of the demand portfolio administrator, including name, job title, business postal address, business electronic mail address, and business telephone number

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Education Program

The Education program will be continued from the 2010 and 2013 Demand Portfolios and will provide consistent energy information to all levels of customers including elementary and secondary students with custom presentations at the Energy Technology Center. OG&E will provide energy surveys to commercial customers targeting churches, non-profits and schools to provide them with knowledge on quick, low or no cost options to reduce their electric bills.

1. A description of the intent of the Demand Portfolio as a whole

OG&E's 2016 Demand Portfolio is structured according to the requirements set forth in OAC 165:35-41-4(b). The Demand Portfolio includes comprehensive long-term energy efficiency programs and an education program targeted to all customer classes. The portfolio is designed to provide energy savings and demand reduction for OG&E customers, minimize long-term cost of utility service, delay the need for new generation, and enable customers to better manage their energy use.

2. A description of the intent of each Demand Program

a. Education Program Residential ("EPR")

The EPR is designed to help customers make informed decisions about their energy use and provides alternatives to reduce their consumption, thereby decreasing demand and energy usage. The program goal is to educate customers to make informed decisions about long term energy efficiency and participate in programs that will help them manage their energy costs and take advantage of price response tariffs. There will be several approaches in this program, as listed below.

- Residential energy assessments
- Participation at conferences and other public events (e.g. home & garden, Thunder Mobile, trade shows)
- Partnering with School energy efficiency education
- Seminars and Trainings
- Media

Schools energy efficiency education is designed to put the energy efficiency decision process into the hands of the students. The program is an initiative to promote awareness with energy efficiency measures within a school system. This will include energy providers:

- Electric
- Gas
- Water

Additionally, it will review the operations and efficiencies of devices, machinery, lighting, etc. in the schools:

- HVAC

- Water Reclamation
- Heating
- Lighting
- Garbage Reclamation
- Air Quality, etc.

Customer Education programs such as a series of webinars, seminars, conferences on energy efficiency and demand response topics will also be offered.

b. Education Program Commercial & Industrial (“EPC&I”)

OG&E will offer small to medium size commercial walkthrough surveys of a single building facility per customer. This program is available to all GS and PL customers, schools and municipalities on any single facility that meets a specified size and facility type on a first come, first served basis for up to 300 facilities. Additionally, OG&E will target up to 150 schools, government and non-profit institutions in its marketing of this program. The survey will consist of a high-level walk-through of the facility, highlighting key energy efficiency measures and improvements. The specific focus of this walk-through survey will be to review lighting, HVAC, motors, compressors, pumps and any other high energy use items. In addition, the surveyor will inspect windows, insulation and obvious air penetration of the facility that affect energy usage and efficiency measures. An electronic report will be provided to the customer following the survey. These audits are intended to be completed in a 2-4 hour time period.

C&I energy efficiency trainings are designed to educate and develop energy efficiency managers and facility managers on energy efficiency improvements they can make at their facilities. The trainings are designed to educate them on topics such as:

- HVAC Systems,
- Compressors,
- Motors,
- Control Systems,
- Chillers,
- Air Penetration,
- Conditioned Environments,
- Lighting, etc.

OG&E will schedule events with, but not limited to Civic Clubs, Chambers of Commerce, Schools, Church Groups, HOA’s and various sectors of commercial businesses.

OG&E will offer a series of webinars, seminars, conferences on energy efficiency and demand response topics to educate customers.

3. A description and quantification of the target market of each Demand Program, differentiated by customer sectors

All residential, commercial and industrial customers are the target market for this program.

4. A base line describing the state of the market that each Demand Program is intended to address, taking into account applicable building energy codes and appliance and equipment energy standards

N/A

5. A description of the barriers to investment in energy efficiency and demand response in the absence of each Demand Program and the ways each Demand Program will reduce or eliminate these barriers

The primary residential implementation barrier is lack of information. Much of the customer population is unable to obtain, adequate information about their energy usage and the simplest and most cost-effective ways to reduce it without sacrificing comfort or convenience. Other customers may have access to the information but allow other factors to drive decision-making in equipment and services purchasing.

To overcome this barrier, OG&E will take a multi-faceted approach designed to accomplish the programs goal of contributing to the creation of a culture of energy efficiency awareness, knowledge and consciousness.

- a. Encourage residential customers to attend an OG&E training on how to reduce your electricity costs through awareness, reduced consumption, time of use rates, and energy efficiency programs offered by OG&E.
- b. Inform customers through a large scale educational campaign through various media of the numerous simple ways in which they can reduce their energy use.
- c. Provide educational opportunities for commercial and industrial customers to learn about energy efficient upgrades, inducement programs to change behavior, rate plans, and other energy efficiency measures.
- d. OG&E will encourage commercial customers to take advantage of the commercial survey through multiple means of marketing communications.

6. A description of research and public input that contributed to the development of the content of each Demand Program

OG&E receives numerous calls, especially during the summer months, from commercial customers requesting an audit be performed on their facilities. Currently, OG&E does not have the ability or resources to perform these audits.

Independent research, as well as experience from OG&E Corporate Communications, guides development of the media campaign. The research shows that customers have an energy knowledge barrier. They lack the knowledge to make energy efficient improvements and the research shows they would make those improvements if educated. The seminars and classes are designed to inform and educate the customers so they can make knowledgeable decisions about their energy use.

7. A report of the cost-effectiveness of each Demand Program and the Demand Portfolio, including program and measure-level supporting data which shall include, but not be limited to, cost-effectiveness screening assumptions of gross and net energy and demand savings, coincident demand factors, energy allocation factors for seasonal and for peak, off-peak, and shoulder periods, non-electric resource benefits, non-resource benefits, participation and/or measure unit numbers, inducement levels, measure cost, and other non-inducement program costs

N/A

8. A detailed description of the derivation of the energy, generation, and transmission and distribution avoided costs, retail cost projections, reserve margins, discount rates, and average and peak line loss assumptions used in the cost-effectiveness calculations

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N/A

10. A plan for evaluation, measurement, and verification of performance and results of the demand portfolio and each program, including a plan for the use deemed savings, if applicable, or the use of statistical, if applicable, or the use of metering, where appropriate; provided that costs associated with the EM&V plan shall not exceed five percent (5%) of the total three-year Demand Portfolio budget

a. Residential

OG&E will keep records of the number of attendees of workshops, trainings, seminars, classes, sponsorships, etc. OG&E will be able to track, how many customers received the assessments and then installed suggested energy efficiency measures

b. Commercial and Industrial

OG&E will keep records of the number of attendees of workshops, trainings, seminars, classes, sponsorships, etc. Additionally, OG&E will keep track of the commercial customers that receive walk-through surveys and encourage them to participate in our CEEP program, in order to perform the energy efficient measures recommended as part of the survey. As a result of the record keeping, OG&E will be able to track, how many customers received the audit and went on to perform the measure as a result of the audit. Additionally, we will survey students attending training sessions to determine what measures they changed at their facilities after the training.

11. A plan for evaluation of the market effects of each Demand Program or applicable group of programs

N/A

12. A plan for evaluation of administration and implementation of each Demand Program or applicable group of programs

OG&E will have one dedicated program manager that will be responsible for the day to day operations and coordination of the program and its contractors. Additionally, OG&E has a formal process to review the administration and the efficiency of each program. The process includes a monthly review of the program's performance, attainment of participation goals, and maintenance of budget. When there are administration concerns, desired changes, or implementation needs, the program manager follows the formal process and requests assistance from the Management Mechanism team.

13. A plan for ending a Demand Program, if applicable

Due to the scheduling of the programs in advance, OG&E would provide any potential audience a minimum of 30 days' notice of a program cancellation and would offer to find an alternative program for the meeting. OG&E would provide a 30-day notice by mass media advertising of its intent to cancel the commercial energy survey program.

14. A process for amending a Demand Program

No amendments will be made to the program without informing the Oklahoma Corporation Commission. OG&E will follow the rules as stated in OAC 165:35-41-5(e) regarding amendments.

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