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STYLE OF DOCKET: (Style may be change	d by Secretary of Commission) <b>Docket Number:</b>
In the Matter of the Request for Approval of I Efficiency Prgorams and the Tariff Related to and Electric Company	ts Quick Start Energy 07-075-TF
DOCKET DESIGNATOR: TF LAS	T RATE CASE DOCKET:
Does this change company name: $\Box$ Yes $\bowtie$ No	
RELATED DOCKETS:	
PETITIONER:	ATTORNERY(S;)NAME, ADDRESS,PHONE,FAX AND E-MAIL
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White a brief statement limited to the space pr	ovided herein describing the case that you are filing. Please provide
enough information to assure that the nature of	
This EE Plan filing is made pursuant to Order	No. 20 issued by the Commission on February 7, 2011.
Pursuant to Pulo 2 03(b) of the Commission	n's Rules of Practice and Procedure, please provide name, address,
	It not more than two, to appear on the Service List for this docket
<b>F</b> ,,,,	
1. Number of customers by class af	fected by this tariff change: Incomplete at this time
2 Company's ourrest sutherized to	tail revenue requirement. Incomplete et this time
2. Company 5 current authorized re	tail revenue requirement: Incomplete at this time
	mpact if proposal is approved, both in dollars and as a requirement: Incomplete at this time
4. Estimated monthly impact on an percentage increase: Incomplete at t	average residential customer in both dollars and his time
5. Proposed effective date: Incomplete	at this time

Form completed by: Lawrence E. Chisenhall Date: 03.15.2011

Representing: Oklahoma Gas and Electric Company

## BEFORE THE ARKANSAS PUBLIC SERVICE COMMISSION

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IN THE MATTER OF THE REQUEST FOR APPROVAL OF ITS QUICK START ENERGY EFFICIENCY PROGRAMS AND THE TARIFF RELATED TO THE PROGRAM BY OKLAHOMA GAS AND ELECTRIC COMPANY

DOCKET NO. 07-075-TF

#### <u>APPLICATION FOR APPROVAL OF OKLAHOMA GAS AND ELECTRIC</u> <u>COMPANY'S ENERGY EFFICIENCY PLAN</u>

Oklahoma Gas and Electric Company ("OG&E") hereby submits this Application for

Approval of its Energy Efficiency Plan pursuant to the Arkansas Energy Conservation

Endorsement Act of 1977<sup>1</sup> and the Arkansas Public Service Commission's ("Commission")

Rules for Conservation and Energy Efficiency Programs, and the Commission's Order No. 20 in

this docket, issued on February 7, 2011. In support of its Application, OG&E states as follows:

- OG&E respectfully requests that the Commission approve its EE Plan, as set forth in Exhibit "A" attached hereto and in the Direct Testimony of Gary Marchbanks, William L. Brooks and Philip R. Bartholomew.
- 2. The following persons should be included on the official service list for this

proceeding:

Lawrence E. Chisenhall, Jr. Chisenhall, Nestrud & Julian, P.A. 400 W. Capitol Avenue, Ste. 2840 Little Rock, AR 72201 (501) 372-5800 <u>lchisenhall@cnjlaw.com</u> Gary Marchbanks Oklahoma Gas & Electric Company 321 N. Harvey Oklahoma City, OK (405) 553marchbgj@oge.com

<sup>&</sup>lt;sup>1</sup> Ark. Code Ann. § 23-3-401, et seq.

WHEREFORE, OG&E hereby respectfully requests that the Commission enter an order

approving its EE Plan.

Respectfully submitted,

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By<u>: /s/ Lawrence E. Chisenhall, Jr.</u> Lawrence E. Chisenhall, Jr. (#74023)

ATTORNEYS FOR OKLAHOMA GAS AND ELECTRIC COMPANY

# OKLAHOMA GAS & ELECTRIC'S 2011 ARKANSAS ENERGY EFFICIENCY PROGRAM ANALYSIS AND PLAN



# MARCH 15, 2011

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# **Executive Summary**

Pursuant to the Arkansas Public Service Commission ("Commission" or "APSC") Rules for Conservation and Energy Efficiency Programs (06-004-R, "Rule") and the Notice of Inquiry Regarding the Expanded Development of Sustainable Energy Resources in Arkansas (08-144-U, Order No. 17, "Order"), Oklahoma Gas & Electric Service Company ("OG&E," or "Company") submits its proposed 2011 Energy Efficiency and Load Management Plan ("2011 Plan"). The Order and Rule require public utilities to offer customers cost-effective energy efficiency and load management programs ("Programs"). They further authorize cost recovery for qualified expenditures relating to the study, development and implementation of these programs.

OG&E's 2011 Plan is intended to fulfill its obligations under the Rule by providing changes and additions to OG&E's initial portfolio of programs filed in 2009, with the aim of increasing participation and energy savings. These changes and additions will be implemented upon Commission review and approval.

OG&E Electric Services offers retail electric service in both Oklahoma and Arkansas, covering approximately 30,000 square miles and servicing approximately 708,000 customers, with approximately with approximately 65,000 located in Arkansas. OG&E's Arkansas service area encompasses the City of Fort Smith ("CFS") and several nearby municipalities, consuming a total of 10.8% of all OG&E energy. In 2010, OG&E's combined retail customer classes used 2,700,703 megawatt-hours ("MWh") of energy, broken down by customer class in the following table.

Customer Class	2010 MWh Consumption
Residential	793,722
Commercial	741,556
Industrial	1,138273
Oilfield	11,151
Street Light	8,951
Public Authority	144,268
Total	2,837,921
Weather-normalized Total	2,700,703

#### Table 1. 2010 MWh OG&E Arkansas Consumption

# **Proposed Program Portfolio Changes and Additions**

As a step towards acquiring all cost-effective and achievable energy efficiency and load management resources available in their service territory, OG&E proposes to add to its current program portfolio the following programs:

• HVAC Tune-Up and Duct Repair Program

- Multi-Family Program
- Window Unit A/C Program
- Commercial Tune-Up Program
- Commercial and Industrial Standard Offer Program

In an effort to increase participation, maximize cost-effectiveness, and reduce free-ridership, OG&E also proposes to make the following changes to existing programs:

- Modify the residential weatherization program to include joint participation with AOG
- Eliminate the Custom Energy Report Program
- Expand participation in the Student Energy Efficiency program and the Commercial Lighting program

Detailed descriptions and cost-effectiveness results for all of OG&E's Proposed Programs are contained in the body of this document.

OG&E analyzed the selected Programs by looking at participation and costs for each Program, as well as analyzing the benefit/cost ratios of each Program based on the Program Administrator Cost Test ("PACT"), the Total Resource Cost test ("TRC"), the Rate Impact Measure ("RIM"), the Participant Cost Test ("PCT"), and the Societal Cost Test ("SCT"). Cumulative impacts and cost effectiveness for OG&E's proposed portfolio are presented in the following tables.

	РСТ	РАСТ	RIM	TRC	SCT
Benefit/Cost Ratio	3.74	1.89	0.64	2.43	2.47
Net Benefits (\$000s)	19,156.02	5,471.28	-6,450.97	9,848.89	10,104.64
Total Benefits (\$000s)	26140.60	11618.94	11618.94	16728.15	16983.91
Total Costs (\$000s)	6984.58	6147.65	18069.90	6879.27	6879.27

#### Table 2. Whole Portfolio Cost-Effectiveness Analysis

#### Table 3. Program Cost-Effectiveness Analysis

Program	РСТ	PACT	RIM	TRC	SCT
Arkansas Weatherization Program	2.53	3.53	0.87	2.14	2.17
Weatherization Program	2.81	0.94	0.49	1.56	1.59
Student Energy Education Program	3.64	0.88	0.50	2.03	2.06
HVAC Tune-Up and Duct Repair	3.77	2.04	0.96	2.90	2.92
Multi-Family Program	1.86	1.10	0.61	1.26	1.27
Window Unit A/C Program	3.27	0.35	0.30	0.42	0.43
Commercial and Industrial Standard Offer Program	9.50	7.35	0.83	6.79	6.91
Commercial Tune-Up Program	5.38	3.60	0.61	2.83	2.88
Commercial Lighting	6.14	12.83	0.83	5.17	5.25

The timeframe for each program was assumed to be three years, with the aim of meeting the energy savings goals identified for 2013 in the Order. In the course of meeting these objectives, unknown factors may affect the savings and cost outcomes for programs.

The estimated energy and demand savings and costs for OG&E's Program Portfolio are summarized in the table below. The energy savings and reductions in peak load for a given year are calculated by recording the recurring annual impacts. Thus, when the end of a measure's effective useful life is reached, the savings from that measure are no longer included. This is why the cumulative savings begin to decrease in 2015. (If not noted otherwise, this is true for all tables in this document.)

Demand reduction (kW) and energy savings (kWh) presented below are net savings at the generator. Gross energy savings (kWh) per participant are presented within each of the program descriptions.

	e Portfolio Pro	Cumulative				
	Annual	kW	Cumulative	Annual	Annual	Total Annual
Year	Participants	Reduction	kWh Energy	Rebate	Admin	Program
	i al cicipanto	in Peak	Savings	Costs (\$)	Costs (\$)	Costs (\$)
		Load				
2011	2,440	1,114.57	5,282,168	1,634,813	182,759	1,817,572
2012	3,734	2,555.54	12,306,153	2,471,672	279,439	2,751,111
2013	3,734	3,996.51	19,330,138	2,471,672	279,439	2,751,111
2014	0	3,996.51	19,330,138	0	0	0
2015	0	3,989.93	19,317,656	0	0	0
2016	0	3,978.57	19,296,069	0	0	0
2017	0	3,966.93	19,274,260	0	0	0
2018	0	3,561.81	17,324,262	0	0	0
2019	0	3,096.68	14,853,500	0	0	0
2020	0	2,631.56	12,382,779	0	0	0
2021	0	2,623.76	12,330,046	0	0	0
2022	0	2,406.56	11,392,535	0	0	0
2023	0	2,067.52	9,991,638	0	0	0
2024	0	1,717.92	8,565,957	0	0	0
2025	0	1,674.29	8,418,461	0	0	0
2026	0	1,649.82	8,326,080	0	0	0
2027	0	1,309.14	6,814,463	0	0	0
2028	0	887.96	4,953,946	0	0	0
2029	0	346.57	2,927,023	0	0	0
2030	0	335.62	2,850,273	0	0	0
2031	0	319.24	2,731,800	0	0	0
2032	0	229.81	1,984,185	0	0	0
2033	0	114.14	992,092	0	0	0
2034	0	0	0	0	0	0
2035	0	0	0	0	0	0
2036	0	0	0	0	0	0
2037	0	0	0	0	0	0
2038	0	0	0	0	0	0
2039	0	0	0	0	0	0
2040	0	0	0	0	0	0

**Table 4. Whole Portfolio Projected Impacts** 

# **Progress towards 2013 Goal**

The Order requires OG&E to achieve an energy savings target of 0.25% reduction for 2011, based on a 2010 energy sales. This target increases to 0.75% of current sales by the end of 2013 (a 0.25% reduction per year for three years). OG&E had weather-normalized retail energy sales of approximately 2,700 GWh in 2010, with 1.708 GWh estimated in savings from efficiency programs run in the current year. Energy savings in 2011, 2012, and 2013 should thus equal 5.043 GWh or 5,043,757 kWh in 2011 and 6.751 GWh per year for the following two years. The impact projections depicted in Table 4 show that, assuming OG&E's participation and energy savings estimates are correct, OG&E energy efficiency

programs will save **5,282,168** kWh, or **5.282** GWh in 2011, increasing to **7.023** GWh savings in both 2012 and 2013. Thus, OG&E projects that it will meet its 2013 goal with the proposed portfolio of programs.

OG&E has made efforts to find cost-effective offerings that will aid in achieving its goal and is prepared to offer the incentives necessary to reach it, but it has also chosen to make realistic assumptions in estimating the cost-effectiveness of measures and the participation that it can expect in its programs.

OG&E continues to search for cost-effective programs to offer its customers and is determined to add programs and measures to its portfolio. With the proposed changes OG&E expects to achieve the Order goal.

# OG&E Energy Efficiency Plan Program Development

# **Background of Existing Programs**

In January 2006, the APSC began the rulemaking for developing and implementing energy efficiency programs for Arkansas's four electric utilities. By May of 2007, these rules were finalized, adopting protocols and procedures for testing the cost-effectiveness of energy efficiency ("EE") programs and conducting evaluation, measurement, and verification (EM&V) of claimed savings.

In October 2007, OG&E introduced a Quick Start Program in the Arkansas jurisdiction. Two of the Quick Start measures, Weatherization and Education, are collaborative efforts by all Arkansas utilities. The experience gained through OG&E's past program activities in Arkansas has guided the design of this 2011 plan for programs.

In addition to formal rebate and incentive programs currently offered in Arkansas, OG&E maintains a database of energy conservation and efficiency information on its website (OGE.com). Customers and the general public are able to access information and energy tips, and are provided links to additional websites on energy efficiency. OG&E also offers customer service support for customers wishing to improve their energy usage. OG&E also offers a variety of rates to residential, commercial and industrial customers in its Oklahoma and Arkansas jurisdictions that are designed to promote load management and energy efficiency.

# Assumptions and Methodologies

OG&E employed standard methodologies and resources to develop this plan. The planning process began with a review of OG&E's previous application for program approval and cost recovery, the results of its previous EE programs, and programs implemented by utilities regionally and nationally. Using these resources, OG&E decided upon an initial set of program changes and additions for analysis.

Each program was analyzed following the steps below:

- 1. Collect program inputs, such as:
  - a. measure costs;
  - b. measure specifications or typical savings;
  - c. estimated useful lives; and
- 2. Determine measures savings 'delta load shapes' through modeling or engineering modeling and end-use load shapes.
- 3. Estimate projected participation.
- 4. Run cost-effectiveness analysis.
- 5. Review program impact, cost, and cost-effectiveness results and revise inputs where appropriate.

The sources for these inputs and estimates include, among others, the following:

- The Database for Energy Efficient Resources;
- National Best Practices Study;
- Plans and evaluations of utility programs from around the country;
- ENERGY STAR<sup>®</sup> resources; and
- Experience of OG&E and Frontier Associates staff.

For all analyses, a common set of utility economic and load assumptions were used.

In order to determine that the selected Programs could be administered cost-effectively, the research team applied screening criteria consistent with the ASPC Rule and Comprehensive Checklist specified in the Order, including:

- Total estimated energy savings and benefit/cost analysis;
- Program availability among customer classes;
- Anticipated participation rates within a customer class;
- Existence of non-energy benefits;
- Administrative ease of deploying a program; and
- Overall portfolio development considerations.

### Utility Economic and Technical Assumptions

The discount rates used for the calculation of the present value of costs and benefits in the cost-benefit tests are as follows:

- Total Resource Cost Test: 5%
- Societal Cost Test: 5%
- Program Administrator Cost Test: 8.6%
- Rate Impact Measure Test: 8.6%
- Participant Cost Test: 9%

The 5% discount rate assumed for the TRC and SCT was derived from a review of rates used in other similar studies, and is a value frequently used as a societal discount rate. This rate reflects the benefit to society over the long term, and is informed by the reduced risk of an investment that is spread across a large swath of society (i.e. a state or region). For the PACT and RIM, OG&E's weighted average cost of capital of 8.6% was used as the discount rate. The PCT rate should represent the debt cost that an entity is willing to bear to finance an investment in energy efficiency. 9% reflects a variety of lending rates or investment requirements for residential and commercial customers. (See Appendix B for a more detailed discussion of discount rates.)

Supply and production avoided cost values were supplied by OG&E. Costs were sufficiently time differentiated to produce more robust results for measures that may emphasize high or low daily or seasonal impacts.

For measures that affect natural gas usage, such as weatherization measures, avoided gas costs were included in the TRC tests. The values used were taken from the 2010 OG&E Computation of Annual Avoided Energy Costs, forecasted out to 2035. Avoided capacity costs were derived from the OG&E fixed production charge rate of a simple cycle gas turbine in 2010. To forecast the marginal energy costs

beyond 2035, an escalation factor was used, based on the average escalation of avoided energy costs supplied by OG&E.

All energy and demand impact estimates have been appropriately adjusted for line losses in OG&E's transmission and distribution system. Savings that occur at the customer meter are translated into savings at the generator by dividing by one minus the line loss factor. For demand, the line loss factor assumed was 8.37% for both residential customers and commercial customers. These values were estimated from OG&E system data.

# Regulatory Requirements for Program Selection

The Commission Rule, 06-004-R, establishes the framework for developing EE programs in the state. Program administrators must present calculations, sensitivity analysis, and supporting testimony for all proposed programs using the following economic tests: the Participant Test, the Ratepayer Impact Measure Test, the Total Resource Cost Test, and the Program Administrator Cost Test. The Rule, as well as Order No. 17, establishes the criteria OG&E has applied in prioritizing and selecting among costeffective programs or program designs, including the following:

- (a) Delivering an achievable cost-effectiveness within a reasonable period of time, maximizing net benefits to customers and the utility system;
- (b) the demonstration that the scope of the program serves all customer classes;
- (c) the provision of education, training, marketing, or outreach to encourage program adoption;
- (d) addressing all major end-uses, as appropriate;
- (e) taking advantage of opportunities to address the needs of targeted customer sectors or to leverage non-utility program resources;
- (f) administrative ease of program development;
- (g) whether the program has adequate EM&V procedures to support program management and improvement, calculation of energy, demand, and revenue impacts, and resource planning decisions.

# Selection and Final Design of Programs

OG&E employed the consulting firm Frontier Associates LLC ("Frontier") to study and assess the energy efficiency potential for residential and commercial programs in OG&E's Arkansas service territory. Frontier has significant experience in program assessment and development. Frontier Associates is a nationally recognized consultancy providing energy efficiency and demand response program design, evaluation, implementation, and measurement and verification services to clients across the country. The Company is especially active in the central United States, with significant contributions to program design, administration, and implementation activities in Illinois, New Mexico, Colorado, Oklahoma, Texas and Arkansas.

As part of the program design and selection process, OG&E applied the Rule and Order requirements listed above. These criteria were used to identify appropriate implementation strategies and rebate levels to maximize program benefits while ensuring that programs remain cost-effective, all with the aim of reaching the 0.25% energy savings target identified by the APSC.

OG&E's focus in designing its Program Portfolio is on Programs that will result in energy and demand savings, rather than non-energy benefits. OG&E recognizes that there may be non-energy benefits associated with its proposed Program Portfolio, but has not included benefits of this type in the cost-benefit tests presented in this analysis.

OG&E has focused on cost-effective programs that have proven successful in other jurisdictions to increase the likelihood of success in implementation. OG&E has also mitigated risk by considering whether to combine measures to form a Program to improve anticipated customer participation rates. In order to promote the successful implementation of its Program Portfolio, OG&E has chosen to combine measures into the specified programs to maximize marketing, educational, and administrative efforts. The programs selected for 2011 implementation are:

- Student Energy Education Program
- Arkansas Weatherization Program
- Weatherization Program
- HVAC Tune-Up and Duct Repair Program
- Multi-Family Program
- Window Unit A/C Program
- Commercial Lighting Program
- Commercial and Industrial Standard Offer Program
- Commercial Tune-Up Program

# OG&E Arkansas 2011 Residential Energy Efficiency Program Portfolio

Oklahoma Gas & Electric's Residential Energy Efficiency Program portfolio includes the following programs. Programs are separated into individual component descriptions to provide greater detail on process, incentive, and marketing requirements.

- Student Energy Education Program
- Arkansas Weatherization Program
- Weatherization Program
- HVAC Tune-Up and Duct Repair Program
- Multi-Family Program
- Window Unit A/C Program

# Student Energy Education (SEE)

# Program Objectives and Goals

The Student Energy Education program is an established residential energy efficiency program that uses a school delivery format in which students are provided with take-home kits containing efficiency devices and are exposed to creative classroom and in-home education techniques which inspire families to adopt new resource usage habits. Students receive a kit of energy and water efficient devices, which are taken home and installed, and the learning experience is shared with family members. They work on subjects required by state learning standards to understand and appreciate the value of natural resources in everyday life. The program aims to shape new behaviors and encourage reduced energy use through a mix of new product installation and resource efficiency knowledge.

In OG&E's Arkansas service territory, the program provides the teachers and their classes of 6th grade students a curriculum on home energy efficiency. At the end of the curriculum a SEE education kit, (which includes a CFL, air filter, aerator, low-flow shower head, night light and energy efficiency information), provides the students the opportunity to participate with their families on energy awareness. The students take the kit home and install the energy efficiency measures with the assistance of their parents.

SEE is a turnkey measure managed by Resource Action Programs (RAP) of Modesto, California. In coordination with OG&E, Resource Action Programs performs the marketing and outreach to acquire participation and enrollment in the program. Once schools are enrolled into the program, Resource Action Programs will deliver educational materials directly to participant teachers.

When training is complete SEE will report results to OG&E. Elementary schools in districts served by OG&E may participate in SEE.

## Implementation and Administration Plan

Task 1: Materials Development & Production

RAP will produce and assemble custom SEE Program materials in preparation for shipment to enrolled classrooms.

Task 2: Teacher outreach and enrollment using pre-approved school lists

OG&E representatives will provide RAP with a list of potential schools who have indicated a willingness to participate. RAP will then contact the school, coordinate dates, and estimate participation volume.

Task 3: Direct shipment of materials to classrooms

Resource Action Programs will send all SEE Program Materials directly to enrolled classes. The quantity of materials sent to the teacher will be based on their verbal or written confirmation of the number of 6<sup>th</sup> grade students enrolled in their class(es). Each participating teacher will receive a set of teacher materials and a SEE Kit. Every student in the participating/enrolled class will receive a SEE Kit.

Task 4: Teacher support and data collection

RAP staff will contact the participating/enrolled teachers via fax, phone, email and mail at various times throughout the program to provide support for the teachers and to request the return of

the audit forms and evaluations. Participants are provided with a toll-free 800 number for assistance.

#### Task 5: Program Reporting

RAP will supply OG&E with a Program Summary Report in time for inclusion in OG&E's annual report to the ASPC.

#### Target Market Segment and Marketing Plan

The target market for the SEE program is families in the residential customer class. Specifically, the program will consist of contact with 6<sup>th</sup> grade students through their teachers' classroom lessons and contact with those students' families through take home activities and products.

Cooperative efforts between OG&E and Resource Action Programs have identified school districts, and approached school administrators on the benefits and process of the measure, and enable teachers to have access to the curriculum. OG&E will inform its customers about the SEE measure through information on its Web site.

#### Participation Requirements

The schools that are approached for participation in this program will be located in and serve children who live in OG&E's Arkansas service territory.

### Program Forecast Statistics and Cost-Effectiveness

#### Program Forecasting Assumptions

The following table free-ridership, participation, and period of analysis used to calculate program savings. The estimated useful life (measure life), utility and participant costs, and incentive levels, along with sources for each of these assumptions, are found in Appendix D.

Assumptions	Low-Flow Shower head	Faucet Aerator	15-Watt CFL
Measure Life (years)	10	10	6.3
Incremental Cost	\$4 \$4	40 per kit	
Rebate	\$ <i>4</i>	40 per kit	
kWh Impact/participant	52.31	140	37
kW Impact/participant	0.006	.012	0.0041
	3.24 in gas-heated homes	6.24 in gas-heated	0
Annual MMBTU Impact		homes	
Free Riders	20%	20%	20%
2011 Participation*	1240	1240	1240
2012 Participation	1840	1840	1840
2013 Participation	1840 1840		1840

 Table 5. SEE Forecasting Assumptions and Annual Savings per Participant

\*Participation reflects the distribution of gas and electric water heating in the CFS area. Participants and savings shown above reflect impacts of shower heads and aerators on homes with electric water heating.

## Program Forecasts Impacts and Costs

The SEE program is expected to reach 1,240 additional 6<sup>th</sup> grade participants and their families during the fall semester of 2011, increasing to 1,840 total new participants each year for both 2012 and 2103. Program impacts (lifetime and annual) and cost-effectiveness results are shown in the tables below.

Program Year	Annual Participants	Annual Savings (kW)	Annual Savings (kWh)
2011	1,240	10.3	102,516
2012	1,840	15.2	152,150
2013	1,840	15.2	152,150

#### **Table 6. SEE Program Savings Projections**

#### **Table 7. SEE Program Costs Projections**

Year	Annual Participants	Cumulative kW Reduction in Peak Load	Cumulative kWh Energy Savings	Annual Rebate Costs (\$)	Annual Admin Costs (\$)
2011	1,240	10.3	102,516	49,600	3,200
2012	1,840	25.5	254,636	73,600	9,200
2013	1,840	40.7	406,756	73,600	9,200
2014	0	40.7	406,756	0	0
2015	0	40.7	406,756	0	0
2016	0	40.7	406,756	0	0
2017	0	40.7	406,756	0	0
2018	0	36.4	366,700	0	0
2019	0	29.8	307,261	0	0
2020	0	23.2	247,822	0	0
2021	0	23.2	247,822	0	0
2022	0	17.3	185,363	0	0
2023	0	8.7	92,681	0	0
2024	0	0	0	0	0

## Program Cost-Effectiveness

The table below displays the cost-effectiveness analysis of the SEE Program.

Table 8. SEE Program C	Cost-Effectiveness Analysis
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	РСТ	РАСТ	RIM	TRC	SCT
Benefit/Cost Ratio	3.64	0.88	0.50	2.03	2.06
Net Benefits (\$000s)	433.07	-22.19	-161.99	166.99	171.46
Total Benefits (\$000s)	597.35	161.07	161.07	328.39	332.86
Total Costs (\$000s)	164.28	183.26	323.06	161.40	161.40

# Arkansas Weatherization Program (AWP)

# Program Objectives and Goals

This measure will be targeted to severely energy inefficient homes. It will provide energy efficiency improvements to participants, thereby decreasing demand and energy usage for those customers. The purpose of the AWP is to improve comfort and reduce energy costs by upgrading the thermal envelope and appliances in severely energy inefficient homes. Funding comes partially from OG&E, with the remaining amount will be a co-pay that the customer is required to pay. The co-payment from the customer must be made prior to any work being completed on the home and prior to any materials being ordered. Payment must be made in the form of cash, cashier's check or money order. OG&E will contribute \$39,701 to weatherize 29 homes in the remainder of 2011 and \$80,771 in both 2012 and 2013 to weatherize 59 homes each year.

The AWP measure is designed to work in partnership with agencies that assist residents occupying severely energy inefficient homes. OG&E will partner with the Fort Smith Community Clearing House and other CAP Agencies in Fort Smith, Arkansas. Independent weatherization service providers will use either of the following two tools to evaluate single family, mobile home or apartment units for cost-effective demand program measures:

- The National Energy Audit Tool (NEAT), and its mobile home counterpart, to calculate a savings to investment ratio (SIR) for prospective measures in a qualified home.
- An online tool based on deemed savings values that OG&E established for the severely energy inefficient homes.

The program helps individuals and families primarily by making their homes more secure from the weather, which helps to conserve energy and reduce energy bills for future years. In addition, homes that are warm in the winter and cool in the summer are more comfortable for individuals.

## Implementation and Administration Plan

A supplemental spreadsheet and online script tool will calculate avoided cost benefits for measures not included in the NEAT audit, such as Compact Fluorescent Lighting and potential electrical appliance replacements. The service providers will use available tools to evaluate measures that strive to cumulatively produce a SIR of 1.0 or greater. All results from local evaluations of measures will be emailed or uploaded to OG&E's data tracking system. OG&E's system will be used to monitor program expenditures, kW, kWh, and (if appropriate) gas therm savings associated with each measure and site.

Based on the incentive estimates, the contractor can determine whether the combination of OG&E incentive, customer contribution, and other grant funds are sufficient to fund the measure. The contractor will record all installed measures using either NEAT inputs or the supplemental spreadsheet form, and transfer the data to OG&E for processing and payment. All home energy efficiency upgrades contained in the Residential Deemed Savings documents (Docket No. 07-152-TF) will be available through this program.

### Target Market Segment and Marketing Plan

The targeted market for this measure is residential home owners occupying severely inefficient single-family homes. The AWP measure is modeled on the DOE Weatherization Assistance Program (WAP);

however, it is open to all OG&E residential customers living in homes meeting the selection criteria described in the "Participation Requirements" section.

OG&E's call center personnel will be provided information on the program to help easily direct potential participants to the Fort Smith Community Clearing House. All inquiries related to the program will be directed to the Fort Smith Community Clearing House Agency. To ensure the program is achieving its intended goal of improving comfort, OG&E will send satisfaction survey cards randomly to participants to support both process evaluation and onsite inspections.

#### Participation Requirements

Energy-inefficient homes will be identified by using the following selection criteria:

- Residential heating or cooling customers of at least one AWP Utility
- Site-constructed or mobile homes
- Homes must meet three of the following seven criteria. Homes built in 1997 or later do not qualify for the AWP.
  - 1. Attic insulation equal to or less than R-22
  - 2. Wall insulation equal to R-0
  - 3. Floor insulation equal to R-0
  - 4. Single pane windows with no storm windows attached
  - 5. Heating system less than 70% efficient
  - 6. Cooling system with SEER of 8 or less
  - Air infiltration problems identified through: a) visual inspection of ductwork, walls, floors, ceilings, doors, and windows; or b) pre-blower door test resulting in: i) greater than 2,200 CFM at 50 pa (for households of five persons or less); or ii) greater than 2,700 CFM at 50 pa (for households of more than five persons)
- Pre and post carbon monoxide (CO) readings must meet the health and safety regulation specified by U.S. Department of Energy ("DOE").

## Program Forecast Statistics and Cost-Effectiveness

#### Program Forecast Impacts and Costs

This program is designed for 59 new participants per year, over a three year term. Free ridership is assumed to be 20%, and relevant incremental and measure life assumptions can be found in Appendix D. All residential measures will be available for this program. Measures contained in this program include ceilings, floor, and wall insulation, duct sealing and insulation, air infiltration, water heating measures, low-flow shower heads, ENERGY STAR appliances and windows, and more efficiency lighting, heating, and cooling. Program impacts (lifetime and annual) and costs over the entire life of the measures in the program are shown in the tables below.

**Table 9. AWP Program Savings Projections** 

Program Year	Annual Participants	Annual Savings (kW)	Annual Savings (kWh)
2011	29	27.1	205,519
2012	59	55	417,988
2013	59	55	417,988

Table 10. AWP Program Impact Projections

	r rogram mi	Cumulative			
	Annual	kW	Cumulative	Annual	Annual
Year	Annual	Reduction	kWh Energy	Rebate	Admin
	Participants	in Peak	Savings	Costs (\$)	Costs (\$)
		Load			
2011	29	27.1	205,519	34,143	5,558
2012	59	82.1	623,507	69,463	11,308
2013	59	137.1	1,041,495	69,463	11,308
2014	0	137.1	1,041,495	0	0
2015	0	137.1	1,041,398	0	0
2016	0	137.1	1,041,179	0	0
2017	0	136.9	1,040,739	0	0
2018	0	136.8	1,039,952	0	0
2019	0	136.7	1,038,418	0	0
2020	0	136.5	1,036,924	0	0
2021	0	136.3	1,035,561	0	0
2022	0	121.8	900,472	0	0
2023	0	92.3	626,814	0	0
2024	0	61.4	343,235	0	0
2025	0	58.3	320,253	0	0
2026	0	55.2	296,931	0	0
2027	0	52.5	289,730	0	0
2028	0	47.3	276,749	0	0
2029	0	42.0	263,768	0	0
2030	0	42.0	263,768	0	0
2031	0	42.0	263,768	0	0
2032	0	33.7	211,732	0	0
2033	0	16.9	105,866	0	0
2034	0	0	0	0	

## Program Cost-Effectiveness

The table below displays the cost-effectiveness results for the AWP.

Table 11. AWF Flogram Cost-Effectiveness Analysis						
	РСТ	РАСТ	RIM	TRC	SCT	
Benefit/Cost Ratio	2.53	3.53	0.87	2.14	2.17	
Net Benefits (\$000s)	842.77	426.20	-92.38	574.91	589.81	
Total Benefits (\$000s)	1,392.86	594.61	594.61	1,077.42	1,092.33	
Total Costs (\$000s)	550.09	168.41	686.99	502.52	502.52	

#### Table 11. AWP Program Cost-Effectiveness Analysis

# Weatherization Program

# Program Objectives and Goals

This measure will be targeted to acutely energy inefficient homes. It will provide energy efficiency improvements to participants, thereby decreasing demand and energy usage for those customers. The purpose of OG&E's Weatherization Program is to improve comfort and reduce energy costs by upgrading the thermal envelope and appliances in targeted households.

This program is delivered in association with the Ft. Smith region gas distribution company, Arkansas Oklahoma Gas (AOG). AOG is contributing resources to be used alongside OG&E's on a per household basis to ensure the most effective application of energy efficiency possible (AOG and OG&E are together referred to as the "Joint Parties," or "Parties").

The Parties will enter into agreements with area weatherization, heating, and air conditioning contractors to perform cost-effective efficiency improvements. Eligible measures include any technology represented in the Arkansas-approved residential deemed savings document. While all upgrades contained in the Residential Deemed Savings documents will be available through this cooperative AOG-OG&E approach, the utilities will likely expand the most historically popular measures. The distribution of measures was derived from the OG&E Oklahoma database of participants in a similar program. These include CFLs (99%), attic insulation (80%), high efficiency refrigerators (28%), window unit air conditioners (6%), air infiltration control (100%), duct efficiency (10%), water heating (15%) and air conditioning/heating system tune-ups (21%). The percent values following each measure represent the frequency of measure installations among total participants.

## Implementation and Administration Plan

A online script tool will calculate avoided cost benefits. All results from local evaluations of measures will be automatically recorded to the Parties' joint online tracking tool. The Parties' system will be used to monitor program expenditures, kW, kWh, and gas therm savings associated with each measure and site.

Based on the incentive estimates, the contractor can determine whether the combination of Parties' incentive and customer contribution are sufficient to fund the measure. OG&E will engage commercial contractors throughout its service territory to perform weatherization services. The program will sponsor a range of energy efficiency improvements, including duct sealing, insulation installation, water heater blanket, windows, refrigerator, dishwasher, washer/dryer, CFL, emergency furnace change out.

### Target Market Segment and Marketing Plan

The targeted market for this program is residential home owners occupying acutely inefficient domains. These may include either single-family or multifamily homes. It is open to all OG&E or AOG residential customers living in homes meeting the selection criteria described in the "Participation Requirements" section. To ensure the program is achieving its intended goal of improving comfort, OG&E will send satisfaction survey cards randomly to participants to support both process evaluation and onsite inspections. OG&E will target eligible customers through direct mail, bill inserts and mass media advertising. OG&E plans to weatherize 1,050 homes in the remainder of 2011, and 1,620 homes in both 2012 and 2013 using commercial contractors to provide the services.

### Participation Requirements

Energy-inefficient homes will be identified by using the following selection criteria:

- Residential heating or cooling customers of either AOG or OG&E
- Site-constructed single-family, multifamily or mobile homes
- Homes built in 1997 or later do not qualify for the program
- Measure eligibility and installation standards must comply with requirements set forth in approved deemed savings documents
- Pre and post carbon monoxide (CO) readings must meet the health and safety regulation specified by U.S. Department of Energy ("DOE").

## Program Forecast Statistics and Cost-Effectiveness

#### Program Forecasting Assumptions

The following table details several assumptions employed in the Weatherization program, including free ridership and program participation. The energy savings estimates were derived by applying Arkansas Deemed Savings numbers to a database of approximately 5,000 OG&E Oklahoma customers participating in an almost identical program. A weighted average of energy savings was calculated for measures as installed. Measure costs were estimated as the average of actual market contractor costs per unit of energy saved. Data related to applicable measures is depicted in Table 12.

Costs were allocated between OG&E and AOG according to the gas or electric benefits produced. If both gas and electric benefits occur, costs are split evenly between the utilities. If only one type of energy savings occurs, the costs are borne by the respective utility. In the first half of the first program year, since AOG is not participating in the program, the cost associated with both gas and electric savings are assigned to OG&E. Although it was not accounted for in the cost-benefit calculation, as the program matures, OG&E may become responsible for additional costs related to installations in gas-only homes, as the budget for the partner utility declines. With the exception of duct sealing, the costs shown in Table 12 are the full measure incremental costs. These costs would be halved if the installation occurs in a home with gas.

Sources for the following data can be found in Appendix C.

Measures	CFLs	Attic Insulation	High Efficiency Refrigerators	Duct Sealing in Gas/Elec Home
Measure Life (years)	6.3	20	18	20
Incremental Cost	\$132	\$566	\$740	\$249
Rebate	\$132	\$566	\$740	S249
kWh Impact/participant	915.6	695.76 (gas/elec home) 1334.35 (electric only)	249.99	674 (gas heat)
kW Impact/participant	0.1019	0.4245 (gas/elec home) 0.2488 (electric only)	0.0406	0.662
Annual MMBTU Impact	0	76.213 (gas/elec home)	0	377.5
Free Riders	20%	20%	20%	20%
2011 Participation	1,034	840	298	34

#### Table 12. Weatherization Forecasting Assumptions and Annual Savings per Participant

2012 Participation	1,596	1,296	460	45
2013 Participation	1,596	1,296	460	45
Measures	Window AC Units	Air Infiltration	AC Tune-Ups	Water Heater Jackets
Measure Life (years)	12.7	10	3	13
Incremental Cost	\$478	\$453	\$73.48	\$39
Rebate	\$478	\$453	\$73.48	\$39
kWh Impact/participant	237.95	309.4 (gas/elec) 2019.6 (electric)	39.7	67.4125 (electric)
kW Impact/participant	0.1386	0.172 (gas/elec) 0.16 (electric)	0.021	0.00496 (electric)
Annual MMBTU Impact	0	113.92 (gas/elec)	0	3.38 (gas)
Free Riders	20%	20%	20%	20%
2011 Participation	64	1050	64	126
2012 Participation	99	1620	99	194
2013 Participation	99	1620	99	194

#### Program Forecast Impacts and Costs

Program impacts (lifetime and annual) and costs over the entire life of the measures in the program are shown in the tables below.

Program Year	Annual Participants	Annual Savings (kW)	Annual Savings (kWh)
2011	1,050	336.97	1,943,037
2012	1,620	515.77	2,994,261
2013	1,620	515.77	2,994,261

#### Table 13. Weatherization Program Lifetime Savings Projections

#### **Table 14. Weatherization Program Impact Projections**

Year	Annual Participants	Cumulative kW Reduction in Peak Load	Cumulative kWh Energy Savings	Annual Rebate Costs (\$)	Annual Admin Costs (\$)
2011	1,050	336.97	1,943,037	1,302,960	95,614
2012	1,620	852.74	4,937,298	2,007,538	127,485
2013	1,620	1,368.51	7,931,559	2,007,538	127,485
2014	0	1,368.51	7,931,559	0	0
2015	0	1,364.53	7,924,064	0	0
2016	0	1,358.38	7,912,474	0	0

2017	0	1,352.23	7,900,884	0	0
2018	0	1,260.21	7,074,307	0	0
2019	0	1,118.18	5,798,468	0	0
2020	0	976.16	4,522,629	0	0
2021	0	976.16	4,522,629	0	0
2022	0	819.66	4,082,203	0	0
2023	0	578.02	3,402,073	0	0
2024	0	328.52	2,708,339	0	0
2025	0	316.19	2,686,079	0	0
2026	0	304.12	2,664,383	0	0
2027	0	304.04	2,663,255	0	0
2028	0	304.04	2,663,255	0	0
2029	0	304.04	2,663,255	0	0
2030	0	293.47	2,586,505	0	0
2031	0	277.16	2,468,032	0	0
2032	0	194.93	1,772,453	0	0
2033	0	97.47	886,226	0	0
2034	0	0	0	0	0

### Program Cost-Effectiveness

The table below displays the cost-effectiveness results for the Weatherization Program.

Table 15. Weatherization Program Cost-Effectiveness Analysis

	РСТ	РАСТ	RIM	TRC	SCT
Benefit/Cost Ratio	2.81	0.94	0.49	1.56	1.59
Net Benefits (\$000s)	8,014.93	-298.94	-4,551.63	2,433.61	2,537.22
Total Benefits (\$000s)	12,450.20	4,460.60	4,460.60	6,757.46	6,861.07
Total Costs (\$000s)	4,435.27	4,759.53	9,012.23	4,323.85	4,323.85

# New Program: HVAC Tune-Up and Duct Repair Program

# Program Objectives and Goals

This measure is an optional program offered by OG&E Arkansas, designed to help them reach the energy savings goals outlined in the Order. The program is targeted toward single family residential customers with central HVAC systems, and works towards improving the efficiency of these units. For both the HVAC tune-up portion and the duct repair portion of this program, the customer must contract air conditioning tune-up and inspection services from an OG&E approved local, certified, and licensed HVAC contractor.

OG&E will pay the \$75 incentive directly to the contractor to off-set inspection and tune-up costs. These tune-ups will be done using utility-approved diagnostic equipment or protocols, such as: Honeywell Service Assistant<sup>™</sup>, Proctor Engineering CheckMe!, Enalasys<sup>™</sup>, Verified RCA<sup>™</sup> or other approved diagnostic system.

A second aspect of the program involves assistance in sealing or repairing HVAC duct work. The customer must contract duct inspection services to identify loose duct connections, collapsed ducts, or uninsulated ducts. If such faulty ducts are found, OG&E will pay up to \$300 directly to the contractor to offset the cost of duct repair.

## Implementation and Administration Plan

This program contains two major components: (1) HVAC inspection and tune-up and (2) Duct repair. In completing the first component, a technician certified in the use of an approved diagnostic system will analyze the air conditioner or heat pump's refrigerant charge, using superheat, subcooling, or another approach per the equipment manufacturer's recommendation. The following pre- and post-service measurements shall be recorded and reported to the utility:

- Condenser air entering temperature
- Return plenum dry bulb and wet bulb temperatures
- Supply plenum dry bulb temperature
- Refrigerant suction line and liquid line temperatures
- Refrigerant suction and discharge pressures

Airflow may either be measured directly or estimated using the temperature split method. This program will be administered through a partnership with licensed Arkansas HVAC contractors. The customer agrees to let this licensed contractor to perform a check-up and inspection of the home's HVAC equipment and overhead duct work. If any repair is needed to the HVAC equipment whose cost exceeds \$75, the customer will be responsible for payment of any such repairs.

For component 2, inspection and repair of duct work within the customer's home, will proceed in a similar manner. The customer will contract these services to a certified technician. Lose, leaky, and/or uninsulated ducts will be repaired, replaced, or reinsulated up to a value of \$300, paid directly to the certified contractor. At the completion of each project, the results will be documented through the use of an OG&E Post-Inspection Survey Form completed by the licensed contractor.

## Target Market Sector and Marketing Plan

The targeted market sector for this program is customers in the residential class whose residence contains a central HVAC system.

#### Participation Requirements

In order to participate in the HVAC tune-up portion of this program, OG&E must verify that the customer fulfills the following criteria:

- 1) Customer or contractor must provide documentation noting home is classified as Residential Property by the local authority for public zoning and built prior to 1999.
- 2) Customer or contractor must provide a written statement noting an existing central air conditioning system with air supply ductwork in the subject home.
- Customer must contract air conditioning tune-up and inspection services from an OG&E approved local certified and licensed HVAC contractor. (The contractor shall provide all applicable licenses and permits prior to starting any work.)
- 4) OG&E will pay the balance of the audit charges up to \$75 directly to the contractor.

To participate in the duct repair portion of this program offering, the customer must meet the following criteria:

- 1) Customer must meet the requirements and qualifications noted for the HVAC tune-up offering.
- 2) Customer must contract duct repair/replacement services from an OG&E approved local certified and licensed HVAC contractor.
- OG&E will contribute a maximum of \$300 to repair, replace or re-insulate faulty ductwork. The \$300 will be paid directly to the contractor. Any additional cost will be paid by the customer.

## Program Forecast Statistics and Cost-Effectiveness

#### Program Forecasting Assumptions

The following table details the estimated useful life (measure life), utility and participant costs, incentive levels, free-ridership and period of analysis used to calculate program savings. The table also includes the gross annual kWh and kW impact at the meter per participant. Sources for each of these assumptions are found in Appendix C.

Assumptions	AC Tune- Up	Duct Sealing - Gas	Duct Sealing – Electrical Resistance
Measure Life (years)	3	20	20
Incremental Cost	\$194	\$498	\$498
Rebate	\$75	\$300	\$300
kWh Impact/participant	112	674	3464
kW Impact/participant	0.06	0.662	0.662
Annual MMBTU Impact	0	110.5	0
Free Riders	20%	20%	20%
2011 Measure	50	36	4
Participation			
2012 Measure	100	72	8
Participation			
2013 Measure	100	72	8
Participation			

Table 16. HVAC Tune-Up and Duct Repair Forecasting Assumptions and Annual Savings perParticipant

## Program Forecast Impacts and Costs

Program impacts (lifetime and annual) and costs over the entire life of the measures in the program are shown in the tables below.

Program Year	Annual Participants	Annual Savings (kW)	Annual Savings (kWh)
2011	50	25.7	38,171
2012	100	51.5	76,342
2013	100	51.5	76,342

Table 17. HVAC Tune-Up and Duct Repair Program Savings Projections

Year	Annual Participants	Cumulative kW Reduction in Peak Load	Cumulative kWh Energy Savings	Annual Rebate Costs (\$)	Annual Admin Costs (\$)
2011	50	25.7	38,171	15,750	16,816
2012	100	77.2	114,513	31,500	33,632
2013	100	128.7	190,855	31,500	33,632
2014	0	128.7	190,855	0	0
2015	0	126.1	185,965	0	0
2016	0	120.8	176,187	0	0
2017	0	115.6	166,408	0	0
2018	0	115.6	166,408	0	0
2019	0	115.6	166,408	0	0
2020	0	115.6	166,408	0	0
2021	0	115.6	166,408	0	0
2022	0	115.6	166,408	0	0
2023	0	115.6	166,408	0	0
2024	0	115.6	166,408	0	0
2025	0	115.6	166,408	0	0
2026	0	115.6	166,408	0	0
2027	0	115.6	166,408	0	0
2028	0	115.6	166,408	0	0
2029	0	0	0	0	0

Table 18. HVAC Tune-Up and Duct Repair Program Impact Projections

## Program Cost-Effectiveness

The table below displays the cost-effectiveness analysis of the HVAC Tune-Up and Duct Repair Program. This program passes all relevant cost-effectiveness tests.

Table 19. HVAC Tune-Up and Duct Repair Program Cost-Effectiveness Analysis

	РСТ	РАСТ	RIM	TRC	SCT
Benefit/Cost Ratio	3.77	2.04	0.96	2.90	2.92
Net Benefits (\$000s)	340.17	141.51	-11.29	346.06	349.38
Total Benefits (\$000s)	462.97	277.41	277.41	528.14	531.46
Total Costs (\$000s)	122.80	135.90	288.69	182.08	182.08

# New Program: Multi-Family Program

# Program Objectives and Goals

This new program proposed by OG&E encourages property managers and owners of multifamily dwellings to upgrade their central air conditioning units. OG&E will provide \$250 per ton rebate incentive to the property owner for any replacement of a 13 SEER HVAC system with a 16 SEER heat pump, if the units are total electric, or 16 SEER and 90% gas furnace, if the units are heated with natural gas. The incentive will be offered directly to the installer of the high efficiency equipment. In order to receive the incentive payment for upgrading to a more efficient unit, the customer must contract with an OG&E approved local, certified, and licensed HVAC contractor to proceed with the installation.

## Implementation and Administration Plan

This program targets the energy savings potential available due to the relatively high number of renters in the CFS area. Apartment complex owners or managers are the beneficiaries of this program, as it will give their buildings a competitive advantage to attract renters, due to the lower utility costs. They may apply if they own/manage a multifamily residence with 13 SEER AC units driven by electric furnaces.. No incentive is available for new construction of for fuel switching.

### Target Market Sector and Marketing Plan

Owners of multifamily units will be targeted with direct mail and direct sales to offer this program. It is expected that there are 12,000 multifamily units in the market.

## Participation Requirements

Participants of this program are owners or property managers of multifamily residential buildings that contain electric central air conditioning units operating at 10 SEER or less.

## Program Forecast Statistics and Cost-Effectiveness

#### Program Forecasting Assumptions

The following table details the estimated useful life (measure life), utility and participant costs, incentive levels, free-ridership and period of analysis used to calculate program savings. The table also includes the gross annual kWh and kW impact at the meter per participant. A 4-ton AC unit was assumed, at a rebate rate of \$250/ton. Sources for each of these assumptions are found in Appendix C.

#### Table 20. Multi-Family Program Assumptions and Savings

Assumptions	
Measure Life (years)	15
Incremental Cost	\$1,428
Rebate	\$250/ton
kWh Impact/participant	1267
kW Impact/participant	0.6
Annual MMBTU Impact	0

Free Riders	20%
2011 Participation	25
2012 Participation	50
2013 Participation	50

#### Table 21. Multi-Family Program Savings Projections

Program Year	Measure Life	Annual Participants	Annual Savings (kW)	Annual Savings (kWh)
2011	15	25	13	27,655
2012	15	50	26	55,309
2013	15	50	26	55,309

## Table 22. Multi-Family Program Impact Projections

Year	Annual Participants	Cumulative kW Reduction in Peak Load	Cumulative kWh Energy Savings	Annual Rebate Costs (\$)	Annual Admin Costs (\$)
2011	25	13	27,655	25,000	8,220
2012	50	39	82,964	50,000	16,440
2013	50	65	138,273	50,000	16,440
2014	0	65	138,273	0	0
2015	0	65	138,273	0	0
2016	0	65	138,273	0	0
2017	0	65	138,273	0	0
2018	0	65	138,273	0	0
2019	0	65	138,273	0	0
2020	0	65	138,273	0	0
2021	0	65	138,273	0	0
2022	0	65	138,273	0	0
2023	0	65	138,273	0	0
2024	0	65	138,273	0	0
2025	0	65	138,273	0	0
2026	0	65	138,273	0	0
2027	0	52	110,619	0	0
2028	0	26	55,309	0	0
2029	0	0	0	0	0
2030	0	0	0	0	0

The program passes most of the cost-effectiveness tests, because the energy saved as a result of upgrading to a 16-SEER unit is sufficient to produce positive cost-benefit ratios.

	РСТ	РАСТ	RIM	TRC	SCT
Benefit/Cost Ratio	1.86	1.10	0.61	1.26	1.27
Net Benefits (\$000s)	127.30	13.34	-98.03	42.20	44.44
Total Benefits (\$000s)	275.28	151.97	151.97	207.49	209.73
Total Costs (\$000s)	147.98	138.63	250.00	165.29	165.29

 Table 23. Multi-Family Program Cost-Effectiveness Analysis

# New Program: Window Unit A/C Program

# Program Objectives and Goals

The purpose of the Window Unit A/C Program would be to provide OG&E single family residential customers without central HVAC systems incentives for purchasing and installing high-efficiency air conditioners. The program is designed to increase energy efficiency of window unit sales, while is reducing energy consumption, lowering energy costs, and increasing the comfort of residential customers that cool part or all or their home with window units. Measure life characteristics suggest that roughly 20 percent of OG&E's residential cooling systems date to 1997 or earlier, suggesting there is a strong annual market for air conditioning systems, assuming an 11 year mean life at time of replacement.<sup>1</sup> ENERGY STAR qualified window air conditioning units would be eligible for rebates under this program.

To qualify for this program, the energy efficiency ratio (EER) must exceed corresponding National Appliance Energy Conservation Act (NAECA) baseline standards by 10 percent or more. After the replacement of an existing window air conditioner with an ENERGY STAR window air conditioner by a certified third-party contractor, the customer would receive a \$40 rebate. Minimum cooling capacity is 5,000 Btu/hour, and the maximum is 25,000 Btu/hour. The baseline is assumed to be a new air conditioning unit with an EER rating that meets current NAECA standard. Current NAECA EER standards vary from 8.5 to 9.8 depending on the configuration of the louvers and the capacity of unit. The current NAECA standard for these products became effective on October 1, 2000.

## Implementation and Administration Plan

OG&E will offer a \$40 rebate for ENERGY STAR Window Air Conditioners up to 13 customers in 2011 and 25 in both 2012 and 2013. The rebate will be paid to the customer upon receipt of OG&E's ENERGY STAR appliance form and invoice of the purchase. The invoice must be dated within one year of the completed energy audit.

### Target Market Sector and Marketing Plan

These rebates will be available to participants of this program that do not have central HVAC systems and are OG&E customers. Owners of homes cooling with window units will be targeted with direct mail, bill insets and point of purchase signs. It is expected that there are 700 homes cooled with window units in the market.

### Participation Requirements

This program is available to any residential customer without a central HVAC system. No incentives are available for new construction or to pay for fuel switching of heating fuels. The rebate will be paid to the customer upon receipt of OG&E's ENERGY STAR appliance form and invoice of the purchase. The invoice must be dated within one year of the completed energy audit.

## Program Forecast Statistics and Cost-Effectiveness

### Program Forecasting Assumptions

The following table details the estimated useful life (measure life), utility and participant costs, incentive levels, free-ridership and period of analysis used to calculate program savings. The table also includes

<sup>&</sup>lt;sup>1</sup> 30th Annual Portrait of the U.S. Appliance Industry, Appliance Magazine, 2006

the gross annual kWh and kW impact at the meter per participant. Sources for each of these assumptions are found in Appendix C.

## Table 24. Window Unit A/C Program Forecasting Assumptions and Annual Savings perParticipant

Assumptions	
Measure Life (years)	12.7
Incremental Cost	\$50
Rebate	\$40
kWh Impact/participant	111
kW Impact/participant	.095
Annual MMBTU Impact	0
Free Riders	20%
2011 Participation	13
2012 Participation	25
2013 Participation	25

#### Program Forecast Impacts and Costs

Program impacts (lifetime and annual) and costs over the entire life of the measures in the program are shown in the tables below.

Program Year	Measure Life	Annual Participants	Annual Savings (kW)	Annual Savings (kWh)
2011	12.7	13	1.1	1,260
2012	12.7	25	2.1	2,423
2013	12.7	25	2.1	2,423

Table 25. Window Unit A/C Program Lifetime Savings Projections

#### Table 26. Window Unit A/C Program Impact Projections

Year	Annual Participants	Cumulative kW Reduction in Peak Load	Cumulative kWh Energy Savings	Annual Rebate Costs (\$)	Annual Admin Costs (\$)
2011	13	1.1	1,260	520	5,416
2012	25	3.2	3,683	1,000	10,416
2013	25	5.3	6,106	1,000	10,416
2014	0	5.3	6,106	0	0
2015	0	5.3	6,106	0	0
2016	0	5.3	6,106	0	0
2017	0	5.3	6,106	0	0
2018	0	5.3	6,106	0	0

2019	0	5.3	6,106	0	0
2020	0	5.3	6,106	0	0
2021	0	5.3	6,106	0	0
2022	0	5.3	6,106	0	0
2023	0	5.3	6,106	0	0
2024	0	4.1	4,846	0	0
2025	0	2.1	2,423	0	0
2026	0	0	0	0	0

#### Program Cost-Effectiveness

The table below displays the cost-effectiveness analysis of the Window Unit A/C program. As is evident in this table, this program is not cost-effective according to the PACT, RIM, TRC, or SCT. While it passes the PCT, this test doesn't take into account the total costs laid out by the utility. Because the proposed program includes such high administration costs for a relatively low impact small-scale AC upgrade, the savings generated by increased energy efficiency are not enough to produce a positive cost-benefit ratio. While this program does not appear to be cost-effective given the assumptions used in its analysis, because in aggregate the portfolio of EE programs offered by OG&E produces ratepayer benefits and positive savings, this program does not necessarily need to be eliminated.

	РСТ	РАСТ	RIM	TRC	SCT
Benefit/Cost Ratio	3.27	0.35	0.30	0.42	0.43
Net Benefits (\$000s)	5.94	-15.64	-19.75	-14.93	-14.84
Total Benefits (\$000s)	8.56	8.39	8.39	10.94	11.03
Total Costs (\$000s)	2.61	24.03	28.14	25.87	25.87

## OG&E Arkansas 2011 Commercial Energy Efficiency Program Portfolio

Oklahoma Gas and Electric Service Company's Commercial Energy Efficiency Program portfolio includes the following programs to be offered in Arkansas. Programs are separated into individual component descriptions to provide greater detail on process, incentive, and marketing requirements.

- Commercial Lighting Program
- Commercial and Industrial Standard Offer Program ("SOP")
- Commercial Tune-Up Program

#### Commercial Lighting Program

#### Program Objectives and Goals

The Commercial Lighting Program provides prescriptive rebates for customers that improve the efficiency of lighting systems in existing buildings. This measure is designed to educate, offer performance contracting services, and provide incentives on replacement of T-12 lamps with T-8 or T-5 lamps to commercial and industrial customers to encourage installation of high efficiency lighting systems. It centers on replacing less efficiency high intensity discharge (HID) lighting with high-bay and low-bay performance fluorescent lamps, replacing inefficient incandescent lighting with hardwired CFLs, replacing incandescent exit lighting with LED exit lighting.

The purpose of this program is to provide incentives to OG&E commercial and industrial (C & I) customers who purchase and install energy efficient indoor and outdoor lighting, lighting controls, occupancy sensors, and light emitting diode (LED), exit lights in both retrofit and new construction applications. The measure offers incentives based on the kW and kWh reduction calculated from a lighting survey by a performance contractor that takes into account the type and quantity of lighting fixtures installed, the building type, and control technologies in place. This approach links the objectives of demand and energy savings to the incentive payment and facilitates tracking and reporting cumulative measure impacts.

OG&E provides

- Financial incentives to replace inefficient lighting
- Financial incentives to plan and install efficient lighting in new construction
- Alliances with third-party lighting contractors who complete the lighting surveys and retrofit the equipment

Commercial lighting measures are among the oldest and most common of utility demand programs. The National Energy Efficiency Best Practices study (<u>www.eebestpractices.com</u>) has a chapter devoted to non-residential lighting programs operated by the California investor-owned utilities, the Sacramento Municipal Utility District, Connecticut Light & Power, and Xcel Energy. These measures have been successful in producing incremental high efficiency lighting sales in their respective service areas.

Customers interested in replacing their lighting will be referred to a 3rd party lighting contractor who will assess existing lighting at a customer's location, provide a lighting audit, and replace lighting as directed by the customer all in the same visit to the customer. The customer will pay the contractor directly for the lighting upgrade.

Customers, such as schools and government entities, may opt for a performance contracting arrangement with the lighting contractor whereby the contractor will pay for the initial installation costs and receive reimbursement from the customer over a period of time. Reimbursement to the contractor can be paid by the customer through the energy savings realized by the installation of more efficient lighting.

This Commercial Lighting Program will decrease energy usage and demand for commercial customers by replacing inefficient lighting. OG&E will promote the lighting measure by educating and informing customers of the appropriate costs and benefits of efficient lighting through its web site (and bill inserts).

OG&E will implement the Commercial Lighting Program by carrying out the following tasks:

- Marketing, promotion, and outreach to eligible customers;
- Customer service and scheduling;
- Program tracking and reporting.

#### Implementation and Administration Plan

Customers for replacement lighting ask OG&E for a list of contractors who will schedule the lighting survey with the commercial customer. The survey will include the types and quantities of lighting fixtures, operational information, and lighting control equipment. The contractor will provide the customer with the survey report comprising recommended new equipment, the materials and installation costs, and estimated payback of the retrofit work.

With the customer's approval to proceed with the project, the contractor will arrange financing, if necessary, complete the retrofit, and apply to OG&E for final inspection of the installation. OG&E will pay the contractor the rebate incentives, so long as the contractor can demonstrate the incentive was used to reduce the customer's project costs. OG&E will pay the customer directly if the work has been performed and was not discounted in the contractor's proposal.

Incentive funding reservations will be limited to a per participant cap equal to 20% of the total incentive budget. To be eligible, commercial or industrial projects must be located in OG&E's electric service territory and be charged under a retail commercial or industrial tariff. Lighting demand and energy savings were estimated using a projected average of the typical lighting retrofit. While OG&E currently anticipates offering this \$2.00 per lamp rebate, due to the widely varying price and efficiency of bulbs, an alternative prescriptive rebate scheme, seen in Table 28, better captures the range of costs associated with high efficiency lighting.

Retrofit	Retrofit Rebate	Retrofit Rebate \$/kW	Annual Savings in kWh	Savings in Peak kW	Measure Estimated Useful Life (EUL)	Lifetime kWh Savings
T12 to T8 Retrofits	\$ Amount	\$ Amount	kWh	kW	Years	kWh
Super T8 Lamps and Ballasts						
4 foot lamps	\$4	\$160	109	0.025	15.5	1,695
1 & 2 lamp						
4 foot lamps	\$6	\$160	171	0.038	15.5	2,652
3 & 4 lamp						
400W HID Retrofits						
High-Bay T8 Lamps and Ballasts	\$ Amount	\$ Amount	kWh	kW	Interactive	kWh
<b>4 foot lamps</b> - 6/8 lamp T8; 4- 6 lamp T5	\$52	\$240	908	0.216	15.5	14,076

#### Table 28. Sample Rebates for Qualifying High-Efficiency Lamps and Fixtures

750 to 1000W HID Retrofits						
High-Bay T8 and T5 Lamps and Ballasts	\$	\$	kWh	kW	Interactive	kWh
<b>4 foot lamps -</b> 12-16 lamp T8; 8-12 lamp T5	\$102	\$200	2,139	0.509	15.5	33,155
Incandescent to Hardwin	red Compact Fl	uorescent Ret	trofits			
Hardwired Compact Fluorescent Fixtures	\$	\$	kWh	kW	Interactive	kWh
26W or less	\$8	\$150	212	0.050	16	3,386
27W or greater	\$11	\$150	303	0.072	16	4,850
Exit sign retrofit & replacement						
Exit sign retrofit & replacement	\$	\$	kWh	kW	Interactive	kWh
Replace Incandescent with LED or LEC	\$5	\$335	60	0.016	15	894

#### Target Market Segment and Marketing Plan

The Commercial Lighting Program will have two primary components:

1) Marketing activities targeted directly to commercial customers

2) activities targeted to the trade partners. The promotional strategy recognizes a distribution channel that includes the following:

- Manufacturers
- Lighting designers
- Distributors
- Electrical contractors
- Lighting installers

OG&E will adopt both "push" and "pull" promotional strategies. In the "push" component, OG&E will increase awareness of the measure among the market channel factors listed above. This can be accomplished through meetings with vendors, trade events, direct mail, and email. The "pull" strategy will target OG&E customers directly, increasing measure awareness levels and the demand for higher efficiency lighting. A variety of mechanisms will be utilized, including media advertising, direct mail, the OG&E website, email, trade shows, and informational articles placed in trade publications. OG&E commercial account managers will play an important role in communicating the availability of program incentives to key accounts.

Print and other collateral materials and forms will need to be developed for the measure for use in promotion. Local case studies will be a component of any promotional material. Owners and managers of target commercial, public authority and industrial facilities of all sizes will be targeted with direct mail and direct sales to offer this program. OG&E believes there are 1,000 customers in this target group.

#### Participation Requirements

All non-residential customers taking service from OG&E in its Arkansas service territory are eligible for the Commercial Lighting Program, provided that the lighting project for which they receive rebates consists of the retrofit of existing equipment only. The rebates described in this plan do not apply to new construction applications; however, new rebates may be developed at a later time for new construction applications, and these projects would be eligible for rebates under this program.

To be eligible for rebates, projects must comply with Energy Policy Act standards and the Federal Fluorescent Ballast Rule. Customers must pay for the installation of approved energy efficiency lighting options. OG&E will provide an incentive after the lighting upgrades have been installed and verified.

#### Program Forecast Statistics and Cost-Effectiveness

#### Program Forecasting Assumptions

The modeling and projections for this program were based on typical lighting retrofit projects in which a mix of baseline fixture systems (lamp and ballast combinations) are replaced with higher efficiency counterparts.

The following table details the estimated useful life (measure life), utility and participant costs, incentive levels, free-ridership and period of analysis used to calculate program savings. The table also includes the gross annual kWh and kW impact at the meter per participant. Sources for each of these assumptions are found in Appendix C.

Table 29. Commercial Lighting Program Forecasting Assumptions and Annual Savings per
Participant

Assumptions	
Measure Life (years)	15
Incremental Cost	\$11,552.8
Rebate	\$2,515
kWh Impact/participant	48,000
kW Impact/participant	12.23
Annual MMBTU Impact	0
Free Riders	20%
2011 Participation	25
2012 Participation	30
2013 Participation	30

#### Program Forecast Impacts and Costs

Program impacts (lifetime and annual) and costs over the entire life of the measures in the program are shown in the tables below.

Program Year	Measure Life	Annual Participants	Annual Savings (kW)	Annual Savings (kWh)
2011	15	25	265	1,047,691
2012	15	30	317	1,257,230
2013	15	30	317	1,257,230

#### Table 30. Commercial Lighting Program Lifetime Savings Projections

#### Table 31. Commercial Lighting Program Annual Impact Projections

Year	Annual Participants	Cumulative kW Reduction in Peak Load	Cumulative kWh Energy Savings	Annual Rebate Costs (\$)	Annual Admin Costs (\$)
2011	25	265	1,047,691	62,875	15,046
2012	30	582	2,304,921	75,450	18,055
2013	30	899	3,562,151	75,450	18,055
2014	0	899	3,562,151	0	0
2015	0	899	3,562,151	0	0
2016	0	899	3,562,151	0	0
2017	0	899	3,562,151	0	0
2018	0	899	3,562,151	0	0
2019	0	899	3,562,151	0	0
2020	0	899	3,562,151	0	0
2021	0	899	3,562,151	0	0
2022	0	899	3,562,151	0	0
2023	0	899	3,562,151	0	0
2024	0	899	3,562,151	0	0
2025	0	899	3,562,151	0	0
2026	0	899	3,562,151	0	0
2027	0	635	2,514,459	0	0
2028	0	318	1,257,229	0	0
2029	0	0	0	0	0

These estimates have been made using a model of a typical office building lighting retrofit project involving a mix of the lighting measures listed in the rebate table shown in the Implementation and Administration section above. The rebate costs were determined from the rebate table assuming the mix of measures in the model. The administrative costs are forecasts of third party administrator costs for developing program materials, receiving and validating applications, providing database program tracking services, and processing rebates.

#### Program Cost-Effectiveness

The proposed program design is cost-effective from the perspectives as indicated in Table 30. As with most lighting programs, there are large benefits to be gained at a small price to the utility, and thus its customers, as reflected in the large PACT ratio.

	РСТ	РАСТ	RIM	TRC	SCT
Benefit/Cost Ratio	6.14	12.83	0.83	5.17	5.25
Net Benefits (\$000s)	4,239.69	2,648.06	-590.95	3,157.70	3,215.81
Total Benefits (\$000s)	5,064.01	2,871.85	2,871.85	3,915.06	3,973.17
Total Costs (\$000s)	824.31	223.79	3,462.81	757.36	757.36

#### Table 32. Commercial Lighting Program Cost-Effectiveness Analysis

#### New Program: Commercial and Industrial Standard Offer Program ("SOP")

#### Program Objectives and Goals

A new commercial measure that OG&E Arkansas is proposing is a Commercial and Industrial Standard Offer Program. The SOP will offer financial incentives for the installation of a wide range of measures that reduce customer energy costs, reduce peak demand, and/or save energy in non-residential facilities such as public authority buildings, schools, hospitals, and other industrial customers in the Arkansas jurisdiction (entities that qualify for the Power and Light rate or the Large power and Light rate). In this program, large individual customers, energy service companies (ESCOs), and qualified contractors are eligible for incentive payments of \$250/kW for energy efficiency projects that significantly reduce customer peak demand.

The SOP allows for incentivizing of many measures not covered under other OG&E programs. If the Commercial/Industrial customer participates in this program then they are not eligible to participate in the Commercial Lighting Program. Savings must be third party measured and verified before incentive payments will be made.

#### Implementation and Administration Plan

This is an incentive-based program marketed to EESPs. Oklahoma Gas & Electric Company (OG&E) will contract with EESPs, using standard offer contracts and incentives; program administration and inspections will be performed by a third-party selected by OG&E. The EESPs will market projects to individual customers. OG&E will conduct outreach for the program by providing complete program information and application materials, one-page program brochure, and conducting workshops for potential project sponsors. A project sponsor is any entity meeting the application requirements that installs eligible energy efficiency measures at a non-residential facility. HVAC contractors will play an important role in this program.

Project sponsors participating in the program will sign a standard offer contract with OG&E. The terms of the contract will be stand (non-negotiable) for all participants, and will include estimates of peak demand and/or energy savings along with maximum incentive payment associated with the project. The project sponsor may install the measures only after the contract is signed and baseline verification is complete. Project sponsors will be required to submit an installation report that documents the actual installation of measures and an M&V report that documents the actual demand and energy savings achieved. OG&E will conduct pre- and post-installation inspections to verify project measures.

#### Target Market Sector and Marketing Plan

The target market for the SOP program includes commercial and industrial customers, broadly defined as any non-residential customer that qualifies for the Power and Light rate or the Large Power and Light rate. Examples of eligible customers include:

- Commercial and Industrial customers that qualify for Power and Light rate or Large Power and Light rate in the Arkansas jurisdiction.
- National and Chain Accounts
- School Districts

• Municipal and other Governmental customers

A participating customer must receive electric distribution service provided by OG&E. Owners and managers of target commercial, public authority and industrial facilities of all sizes will be targeted with direct mail and direct sales to offer this program. OG&E believes there are 1,000 customers in this target group.

#### Participation Requirements

To ensure that the program's incentive budget is allocated to projects that are likely to meet with success, all project sponsors will be required to demonstrate a commitment to fulfilling program objectives and competency in completing the proposed project. Project sponsors will be required to submit the following information as part of the application process:

- A description of the project sponsor firm, including relevant experience, areas of expertise and references.
- A work plan that covers the design, implementation, operation, and management of the project (the amount of detail required in this work plan will vary with project size).
- Evidence of credit rating.
- Proof of applicable insurance, licenses and permits.

These requirements shall be waived if the program sponsor is an individual customer that installs eligible measures in its own facilities. This program purposely does not specify specific eligible measures too allow energy service providers to have flexibility in packaging services. Project sponsors may propose the inclusion of any measure in their project that meets the following requirements:

- Measures must produce savings through an increase in energy efficiency or a substation of another energy source of electricity supplied through the transmission grid.
- Measures must be installed in a retrofit application or in new construction.
- Measures must have a minimum useful life of 10 years.
- Measures must meet or exceed minimum equipment efficiency standards.

The following measures are *excluded* from consideration in the program:

- Measures that involve plug loads.
- Measures that receive an incentive through any other energy efficiency program offered by OG&E
- Measures that rely only on changes in customer behavior or require no capital investment.

A project is defined by a set of proposed measures and estimated demand and energy savings included in a single application. Each project must include a total estimated demand reduction of at least 20kW. This limitation is included to ensure that projects contribute to the primary goal of reducing peak demand and to minimize administrative costs. This requirement may be waived if the program sponsor is an individual customer that installs measures in its own facilities. Customers must pay for the installation of approved energy efficiency lighting options. OG&E will provide an incentive after the efficiency projects are complete and verified by a 3<sup>rd</sup> party.

#### Program Forecast Statistics and Cost-Effectiveness

#### Program Forecasting Assumptions

The following table details free ridership and program participation. The estimated useful life (measure life), utility and participant costs, incentive levels, and the gross annual kWh and kW impact at the meter per participant can be found in Appendix C.

#### Table 33. SOP Forecasting Assumptions and Annual Savings per Participant

Assumptions	
Free Riders	20%
2011 Participation	5
2012 Participation	5
2013 Participation	5

#### Program Forecast Impacts and Costs

Program impacts (lifetime and annual) and costs over the entire life of the measures in the program are shown in the tables below.

Table 34. SOP Lifetime Savings Projections

Program Year	Annual Participants	Annual Savings (kW)	Annual Savings (kWh)
2011	5	402.4	1,688,328
2012	5	402.4	1,688,328
2013	5	402.4	1,688,328

#### **Table 35. SOP Annual Impact Projections**

Year	Annual Participants	Cumulative kW Reduction in Peak Load	Cumulative kWh Energy Savings	Annual Rebate Costs (\$)	Annual Admin Costs (\$)
2011	5	402.4	1,688,328	115,231	14,868
2012	5	804.8	3,376,656	115,231	14,868
2013	5	1,207.2	5,064,984	115,231	14,868
2014	0	1,207.2	5,064,984	0	0
2015	0	1,207.2	5,064,984	0	0
2016	0	1,207.2	5,064,984	0	0
2017	0	1,207.2	5,064,984	0	0

2018	0	898.5	3,982,406	0	0
2019	0	582.1	2,848,456	0	0
2020	0	265.8	1,714,507	0	0
2021	0	258.2	1,663,137	0	0
2022	0	217.9	1,363,600	0	0
2023	0	158.6	1,009,173	0	0
2024	0	99.3	654,746	0	0
2025	0	73.1	554,915	0	0
2026	0	65.9	509,975	0	0
2027	0	39.1	310,023	0	0
2028	0	19.6	155,011	0	0
2029	0	0	0	0	0

#### Program Cost-Effectiveness

The table below displays the cost-effectiveness analysis of the SOP Program.

#### Table 36. SOP Cost-Effectiveness Analysis

	РСТ	РАСТ	RIM	TRC	SCT
Benefit/Cost Ratio	9.50	7.35	0.83	6.79	6.91
Net Benefits (\$000s)	3,967.25	2,104.10	-501.82	2,559.67	2,612.64
Total Benefits (\$000s)	4,433.94	2,435.43	2,435.43	3,001.82	3,054.79
Total Costs (\$000s)	466.69	331.32	2,937.25	442.16	442.16

#### New Program: Commercial Tune-Up Program

#### Program Objectives and Goals

The program is designed to help customers by improving the efficiency of their Commercial Air Conditioning, Food Service, Refrigeration and/or Ventilation systems to upgrade in efficiency or tune-up of Commercial Air Conditioning. The three targets are:

- 1. Food Sales (groceries, butchers, etc.) >50% of total use is for refrigeration
- 2. Food Service (full service and fast food restaurants) 20 to 24% of total use is refrigeration
- 3. Industrial Food and kindred products (food processors, meat packing plants, dairies, refrigerated warehouses, etc.)

The applicable measures for the commercial applications include:

- Evaporator Fan ECM Motor
- ECM/Variable Speed Compressor
- High-Efficiency Compressor
- Condenser Fan ECM Motor
- Floating Head Pressure
- Non-Electric Antisweat
- Thicker Insulation
- Ambient Subcooling
- Hot Gas Defrost
- Liquid-Suction Heat Exchangers
- Antisweat Heater Controls
- Other Ice Machine Process Improvements
- Heat Reclaim
- Defrost Control
- Mechanical Subcooling

In the industrial sector, the measures include:

- Programmable Logic Controller (PLC) Control Systems
- Variable Speed Systems
- Compressor Plant Upgrades
- High Efficiency Condensers
- Heat Recovery
- Envelope and Door Improvements
- Heat Exchanger Optimization

#### Implementation and Administration Plan

Commercial Tune-Up Program will target commercial, public authority and industrial facilities of all sizes for efficiency information and upgrades. OG&E will pay an incentive for Commercial Air Conditioning, Foodservice, Refrigeration and/or Ventilation systems to upgrades in efficiency. OG&E will also pay to tune-up the Commercial Air Conditioning systems. These incentives will be assigned on a prescriptive basis, after the project cost have been verified by a licensed third party, but will not exceed \$9578 per project for the three project expected in 2011.

#### Target Market Sector and Marketing Plan

Owners and managers of target commercial, public authority and industrial facilities of all sizes will be targeted with direct mail and direct sales to offer this program. OG&E believes there are 1,000 customers in this target group.

#### Participation Requirements

Customers must pay for the installation of approved energy efficiency lighting options. OG&E will provide an incentive after the efficiency projects are complete and verified by a 3<sup>rd</sup> party.

#### Program Forecast Statistics and Cost-Effectiveness

#### Program Forecasting Assumptions

The following table details the estimated useful life (measure life), free ridership, and participant estimates used to calculate program savings. It offers estimates for an aggregated example of a multiplemeasured refrigeration project occurring within this program. Further assumptions regarding the Commercial Tune-up Program are found in Appendix C.

## Table 37. Commercial Tune-up Program Forecasting Assumptions and Annual Savings perParticipant

Assumptions	
Measure Life (years)	15
Incremental Cost	\$24,950
Rebate	\$9,578
Annual kWh Saved	87,045
Annual kW Saved	12.76
Annual Therms Saved	0
Free Riders	20%
2011 Participation	3
2012 Participation	5
2013 Participation	5

#### Program Forecast Impacts and Costs

Program impacts (lifetime and annual) and costs over the entire life of the measures in the program are shown in the tables below.

Program Year	Measure Life	Annual Participants	Annual Savings (kW)	Annual Savings (kWh)
2011	15	3	33	227,991
2012	15	5	56	379,984
2013	15	5	56	379,984

Table 38. Commercial Tune-up Program Lifetime Savings Projections

 Table 39. Commercial Tune-up Program Annual Impact Projections

Year	Annual Participants	Cumulative kW Reduction in Peak Load	Cumulative kWh Energy Savings	Annual Rebate Costs (\$)	Annual Admin Costs (\$)
2011	3	33	227,991	28,734	18,021
2012	5	89	607,975	47,890	38,035
2013	5	145	987,959	47,890	38,035
2014	0	145	987,959	0	0
2015	0	145	987,959	0	0
2016	0	145	987,959	0	0
2017	0	145	987,959	0	0
2018	0	145	987,959	0	0
2019	0	145	987,959	0	0
2020	0	145	987,959	0	0
2021	0	145	987,959	0	0
2022	0	145	987,959	0	0
2023	0	145	987,959	0	0
2024	0	145	987,959	0	0
2025	0	145	987,959	0	0
2026	0	145	987,959	0	0
2027	0	111	759,969	0	0
2028	0	56	379,985	0	0
2029	0	0	0	0	0
2030	0	0	0	0	0
2031	0	0	0	0	0

#### Program Cost-Effectiveness

The table below displays the cost-effectiveness analysis of the Commercial Tune-up Program to be offered by OG&E.

	РСТ	PACT	RIM	TRC	SCT
Benefit/Cost Ratio	5.38	3.60	0.61	2.83	2.88
Net Benefits (\$000s)	1,184.90	474.84	-423.13	582.69	598.73
Total Benefits (\$000s)	1,455.44	657.61	657.61	901.43	917.48
Total Costs (\$000s)	270.54	182.78	1,080.74	318.75	318.75

#### Table 40. Commercial Tune-up Program Cost-Effectiveness Analysis

### Appendix A: Residential and Commercial Baseline Model Characteristics

The model incorporates baseline building characteristics to determine commercial and residential deemed savings for a variety of structures. This baseline data can be found in the 2010 Arkansas Updated Deemed Savings Program documents, Docket No. 07-152-TF, filed by the APSC in 2011.

## **Appendix B: Discount Rates**

#### Total Resource Cost Discount Rates

The total resource rate selected for this analysis, 5 percent, was determined based on a review of values used in other recent studies. In theory, this discount rate should reflect society's preferences for benefits or costs incurred today versus benefits or costs incurred in the future. Since "society" is comprised of numerous individuals, businesses, and organizations that may have very different payback criteria, investment alternatives, and preferences, a societal discount rate is merely a crude average value.

A recent report from the International Energy Agency (IEA) explores societal discount rates in detail.<sup>2</sup> The authors note that discount rates in the 4 percent to 8 percent range are typically applied in evaluating the cost-effectiveness of energy efficiency policies. The American Council for an Energy Efficient Economy (ACEEE) has adopted a 5 percent real discount rate. Policy studies in California use nominal discount rates of 8.15 percent or real rates of about 5 percent.

In its evaluation of the benefits and costs of new federal air-conditioning efficiency standards, the DOE used societal discount rates of 7 percent and 3 percent.<sup>3</sup> In calculating the non-energy benefits from weatherization programs, Oak Ridge National Laboratory recently used a discount rate of 3.2 percent.<sup>4</sup> In a recent study examining green building opportunities in Portland, Oregon, a 5.8 percent nominal or 3 percent real discount rate was applied.<sup>5</sup>

In contrast, some argue that consumer discount rates, which are typically at or higher than credit card lending rates, should be applied to societal tests and policy decisions, since consumers are a key component of society at large and society should reflect consumer preferences. (Consumer discount rates are discussed in the next section.) Consumer implicit discount rates were not used for the total resource or societal cost tests for two key reasons. Firstly, most sources suggest a societal rate close to our chosen value. Secondly, using this approach will ensure that viable technologies are not rejected as non-cost-effective from a societal standpoint before they can ever be screened against the utility's resource mix and at the utility's discount rate.

#### Participant Discount Rates

Studies that have examined actual consumer behavior toward energy efficiency investments suggest that the actual discount rates that energy consumers apply in their decision-making might be anywhere from 20 percent to 800 percent.<sup>6</sup> The highest rates suggest that consumers only pursue certain types of investments with payback periods as short as a few months. In practice, consumers express different discount rates depending on a variety of factors.

<sup>&</sup>lt;sup>2</sup> Howard Geller and Sophie Attali for the International Energy Agency, "The Experience with Energy Efficiency Policies and Programmes in IEA Countries," Paris, August 2005.

<sup>&</sup>lt;sup>3</sup> US DOE, "Energy Conservation Standards for Central Air-conditioners and Heat Pumps," *Federal Register*, RIEN: 1904-AA77, Vol. 66, No. 14, January 22, 2001.

<sup>&</sup>lt;sup>4</sup> Martin Schweitzer and Bruce Tonn, "Non-Energy Benefits from the Weatherization Assistance Program: A Summary of Findings from Recent Literature," ORNL/CON-484.

<sup>&</sup>lt;sup>5</sup> Xenergy and SERA Architects, "Green City Buildings: Applying the LEED Rating System," Prepared for the Portland Energy Office, June 18, 2000, p. S-3.

<sup>&</sup>lt;sup>6</sup> Summarized in Howard Geller and Sophie Attali for the International Energy Agency, "The Experience with Energy Efficiency Policies and Programmes in IEA Countries," Paris, August 2005.

While higher discount rates may be used analyzing likely market behavior, this analysis is intended to illustrate present value of efficiency investments assuming minimal risk factors, so a value of 9% is chosen, reflecting a variety of lending rates or investment requirements for residential and commercial customers.

#### Utility Discount Rate

This analysis uses a weighted average cost of capital (WACC) for the discounting future costs and benefits to OG&E. The WACC represents the utility's average cost of borrowing, and is typically used as the discount rate for the RIM and PACT tests. This discount rate takes into account the debt and equity costs and the proportion of financing obtained from each.<sup>7</sup> A value of 8.6% was used, based on the weighted average cost of debt and equity securities used for 2009 forecasts<sup>8</sup> as shown in the table below:

Component	Percent of Total	Percent Cost	Weighted Average
Long Term			
Debt	44.3%	6.03%	2.7%
Common Equity	55.7%	10.75%	5. <b>9</b> %
Total	100%		8.6%

#### Table A.B. 1 Weighted Average Cost of Capital

<sup>&</sup>lt;sup>7</sup> National Action Plan for Energy Efficiency (2008). Understanding Cost-Effectiveness of Energy Efficiency Programs: Best Practices, Technical Methods, and Emerging Issues for Policy-Makers. Energy and Environmental Economics, Inc. and Regulatory Assistance Project. p. 4-8.

<sup>&</sup>lt;sup>8</sup> Oklahoma Department of Environmental Quality, Air Quality Division, BART Review, 2010 Case No. 10-024., p. 15.

## Appendix C: Model Inputs

#### **Residential Programs Inputs**

#### Table A.C. 1: Residential Program Portfolio Measure Lives

		_
Measure	Measure Life	Source
Central HVAC Tune-Up	3	Arkansas Deemed Savings 2010, Docket 07- 152-TF
Duct Sealing	20	Deemed Savings
ENERGY STAR Central AC/HP Replacement	15	US DOE, Energy Star estimate
Water Heater Pipe Insulation	11	Deemed Savings
Attic Insulation	20	Deemed Savings
Floor Insulation	20	Deemed Savings
Wall Insulation	20	Deemed Savings
Water Heater Jackets	13	Deemed Savings
ENERGY STAR Water Heater Replacement	13	Deemed Savings
High Efficiency Refrigerator	18	Deemed Savings
ENERGY STAR Furnace	20	Deemed Savings
ENERGY STAR Windows	20	Deemed Savings
CFL Bulb Replacement	6.3	Deemed Savings
Low-Flow Shower Heads	10	Deemed Savings
Air Infiltration	10	Deemed Savings
AC/HP Tune-Up	3	Deemed Savings
AC Window Unit Replacement	12.7	Deemed Savings
		·

Sourco	Incremental Cost	Measure
Source		
DEER 2008	\$194.38	Central HVAC Tune-Up
DEER 2008	\$497.62	Duct Sealing
DEER 2008	\$1428	ENERGY STAR Central AC Replacement
RSMeans 2007, Ft Smith location factor applied Market average from OG&E OK actual contractor cost	\$526.75 for AWP \$556 for Weatherization Program	Attic Insulation
RSMeans 2007	\$1800	Floor Insulation
RSMeans 2007	\$2388.75	Wall Insulation
US DOE Office of Efficiency & Renewable Energy estimate	\$20 for AWP	Water Heater Jackets
Market average from OG&E OK actual contractor cost	\$39 for Weatherization	
ACEEE estimate http://www.aceee.org/consumer/water-heating	\$750	Water Heater Replacement, 0.82 EF
Market average from OG&E OK actual contractor cost	\$740	ENERGY STAR Refrigerator
DEER 2008	\$300	ENERGY STAR Furnace
Frontier Estimate	\$3178	ENERGY STAR Windows
US DOE Office of Efficiency & Renewable Energy estimate Market average from OG&E OK actual contractor cost	\$2.8 for AWP \$131.99 for Weatherization Program (per project estimate)	CFL Bulb Replacement
DEER 2008	\$14.90	Low-Flow Shower Heads
NEAT/Frontier Estimate Market average from OG&E OK actual contractor cost	\$300 for AWP \$453 for Weatherization Program	Air Infiltration
DEER 2008	\$194.38 for HVAC Duct program, AWP	AC/HP Tune-Up
Market average from OG&E OK actual contractor cost	\$73.48 for Weatherization	
ENERGY STAR website calculator Market average from OG&E OK actual contractor cost	\$50 for Multifamily Program \$477.62 for Weatherization	AC Window Unit Replacement
DEER 2008	\$2.80	Faucet Aerator
DEER 2008	\$300	Duct Insulation

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Student Energy Education (LivingWise) Kit	\$40	OG&E Estimate
HP Replacement	\$3,184	DEER 2008

#### Commercial Programs Inputs

Measure Life (years) 15 for Premium Efficie 10 for Variable S	15 15 ency Motors	Source Database for Energy Efficiency Resources (DEER) Database for Energy Efficiency Resources (DEER) – for Inpatient Health Care and Large Public Assembly Buildings a measure life of 20 years was used, also sourced from DEER Measure Life Report: Residential and Commercial/Industrial Lighting and HVAC Measures (for The New England State Program Working Group (SPWG)) / Database for Energy Efficiency Resources (DEER) 2010 Deemed Savings
10 for Variable S	15 ency Motors speed Drives 12	(DEER) Database for Energy Efficiency Resources (DEER) – for Inpatient Health Care and Large Public Assembly Buildings a measure life of 20 years was used, also sourced from DEER Measure Life Report: Residential and Commercial/Industrial Lighting and HVAC Measures (for The New England State Program Working Group (SPWG)) / Database for Energy Efficiency Resources (DEER)
10 for Variable S	ency Motors Speed Drives 12	<ul> <li>(DEER) – for Inpatient Health Care and Large Public Assembly Buildings a measure life of 20 years was used, also sourced from DEER</li> <li>Measure Life Report: Residential and Commercial/Industrial Lighting and HVAC Measures (for The New England State Program Working Group (SPWG)) / Database for Energy Efficiency Resources (DEER)</li> </ul>
10 for Variable S	peed Drives	Commercial/Industrial Lighting and HVAC Measures (for The New England State Program Working Group (SPWG)) / Database for Energy Efficiency Resources (DEER)
t EUL by Building Typ		2010 Deemed Savings
t EUL by Building Typ	15	
t EUL by Building Typ		DEER database
rocess Cooling od Compressors troleum Pumps od Refrigeration Healthcare Warehouse e Public Assembly arge Education	13 13 7 15 15 15 11 6 10	OG&E Oklahoma 2009 Phase II Report Commercial/Industrial Assumptions
3	Warehouse Public Assembly arge Education S Large Education	Warehouse15e Public Assembly11arge Education6

#### Table A.C. 3: Commercial Program Portfolio Measure Lives

Measure		Increm	ental Cost			Source
Commercial Lighting					\$11,553	Frontier Estimate based on assumed mix of typical lighting technologies
Commercial Cooking	\$469 to \$12,219 ovens, fryers, sala	-			broilers,	Database for Energy Efficiency Resources (DEER)
Commercial Motors	Premium Efficier	icy Motors	\$111			Baldor catalog, three- phase, rigid base. List
commercial motors	Variable Speed N	lotors	\$2,603			Price
SOP Components	Incremental Co	sts, Rebates,	Energy Sav	ed by meas	ure	OG&E Oklahoma 2009
		Incremental Cost	Rebate Amount	kWh Saved	kW Saved	Phase II Report Commercial/Industrial Assumptions
	Process Cooling	\$6 <i>,</i> 400	\$4,000	98,952	16	
	Food Compressor	\$10,800	\$6,750	183,869	27	
	Petroleum Pump	\$170,000	\$106,250	3,397,190	425	
	Food Refrig	\$5,600	\$3,500	112,083	14	
	Healthcare	\$400	\$250	4,693	1	
	Warehouse	\$400	\$250	4,123	1	
	Large Public Assembly	\$42,000	\$26,500	168,288	106	
	VFDs Large Education	\$22,400	\$14,000	416,600	56	
	Large Education	\$157,200	\$98,250	1,377,733	393	
	Large Office	\$67,600	\$42,240	457,652	169	
	Large Lodging	\$12,000	\$7,500	221,423	30	
Commercial Refrigeration	Ranges from \$2.2 (including fan mo insulation, subco improvements, h subcooling).	tors, compress oling and defro	ors, antiswe ost, heat exch	at measures, nangers, proc	ess	DEER 2008

Table A.C. 4: Commercial Program Portfolio Incremental Costs
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# Appendix D: Evaluation, Measurement, and Verification Plan

#### Introduction

This measurement and verification (M&V) plan is an integral component of OG&E's management oversight of the Company's energy efficiency programs. Through its various installation validation, inspection, and measurement activities, OG&E will ensure robust tracking and reporting of the energy savings reasonably attributable to individual programs.

In general, OG&E will use any of the following four M&V options, as dictated by the measure type. In every instance, OG&E will endeavor to ensure compliance with guidelines set forth in either the International Performance Measurement & Verification Protocol (IPMVP) Volume III manual, or ASHRAE Guideline 14.

**Option 1 - Partially Measured Retrofit Isolation:** Partially measured retrofit isolation is the first of four generally accepted M&V options used to measure ECM impacts. It involves using metering equipment to isolate and measure the demand or energy use associated with an ECM.

**Option 2 - Fully Measured Retrofit Isolation:** Fully measured retrofit isolation is the second of four generally accepted M&V options used to measure ECM impacts. It also involves using metering equipment to isolate and measure the demand or energy use associated with an ECM, but does not allow stipulations, meaning that all parameters must be measured.

**Option 3 - Whole Building Measurement:** Whole building measurement is the third of four generally accepted M&V options used to measure ECM impacts. It involves using utility or whole building meters to measure the demand or energy use associated with one or more ECMs. Whole building measurement may allow some engineering modeling of key independent variables, such as occupancy or weather, that may differ between the baseline and post-installation period.

**Option 4 - Calibrated Simulation:** Calibrated simulation is the last of four generally accepted M&V options used to measure ECM impacts. It involves using computer simulation modeling to predict the outcome of installing a demand response, efficiency, or renewable measure. The calibration procedure ensures that the model output reasonably matches pre- and post-installation performance.

Application of deemed savings values falls in the Calibrated Simulation category. When appropriate, OG&E will apply the deemed savings approved in Docket 07-152-TF. Each program will also be subjected to an onsite inspection/verification process. In larger scale programs, OG&E may apply a sampling strategy to ensure statistically valid results while avoiding excessive administrative costs. Certain measures, like commercial custom efficiency options, will require 100% sampling.

OG&E staff will perform the inspections to verify that measures are installed as reported and that the measures are capable of producing the claimed energy savings. This includes ensuring site eligibility as well as compliance with required installation standards. All incentive payments will be subject to adjustment according to inspection results.

In very complex situations, OG&E may contract with an outside, independent entity to perform measurement and verification.

The specific M&V approach for each program in OG&E's portfolio follows. The programs are:

- Student Energy Education
- Arkansas Weatherization Program (AWP)
- Weatherization Program
- New Program: HVAC Tune-Up and Duct Repair Program
- New Program: Multi-Family Program
- New Program: Window Unit A/C Program
- Commercial Lighting Program
- New Program: Commercial and Industrial Standard Offer Program ("SOP")
- New Program: Commercial Tune-Up Program

#### Student Energy Education (SEE)

#### Savings Measurement

OG&E will utilize the Residential Deemed Savings, Installation and Efficiency Standards<sup>9</sup> to estimate energy savings for SEE.

OG&E will maintain and track data about Student Energy Education either through an online tool or paper form. OG&E will compile the data from each project and report the total annual energy savings and the peak demand savings as required by the Rule.

#### Arkansas Weatherization Program (AWP)

#### Savings Measurement

OG&E will utilize the Residential Deemed Savings, Installation and Efficiency Standards located in the 2010 Arkansas Updated Deemed Savings Program documents, Docket No. 07-152-TF, to estimate energy savings for the AWP. In some instances, the Weatherization service providers may elect to report savings based on the National Energy Audit Tool (NEAT) report.

#### Data Tracking

OG&E will maintain and track data on each of the AWP projects performed either through an online tool or paper form.

This data will include, but not be limited to:

- 1. Identifiers of the Property for OG&E System
- 2. Property Qualifications
- 3. Property Weatherization Measures completed

<sup>&</sup>lt;sup>9</sup> "Arkansas Deemed Savings, Installation & Efficiency Standards." Arkansas Comprehensive Program Deemed Savings. Submitted to the Arkansas Deemed Savings Collaborative by Frontier Associates.

- 4. Savings associated with work performed
- 5. Documents and records provided by Contractors
- 6. Database of these records with backup system in place

OG&E will compile the data from each project and report the total annual energy savings and the peak demand savings as required by the Rule.

#### Weatherization Program

#### Savings Measurement

OG&E will utilize the Residential Deemed Savings, Installation and Efficiency Standards from the Deemed Savings documents to estimate energy savings. In some instances, the Weatherization service providers may elect to report savings based on the National Energy Audit Tool (NEAT) report.

#### Data Tracking

OG&E will maintain and track data on each of the Weatherization projects performed.

This data will include, but not be limited to:

- 1. Identifiers of the Property for OG&E System
- 2. Property Qualifications
- 3. Property Weatherization Measures completed
- 4. Savings associated with work performed
- 5. Documents and records provided by Contractors
- 6. Database of these records with backup system in place

OG&E will compile the data from each project and report the total annual energy savings and the peak demand savings as required by the Rule.

#### New Program: HVAC Tune-Up and Duct Repair Program

#### Savings Measurement

OG&E will utilize the Residential Deemed Savings, Installation and Efficiency Standards to estimate energy savings for this program. In some instances, service providers may elect to report savings based on the National Energy Audit Tool (NEAT) report.

#### Data Tracking

OG&E will maintain and track data on each part of the program either through an online tool or paper form. This data will include, but not be limited to:

- 1. Identifiers of the Property for OG&E System
- 2. Property Qualifications
- 3. Property Measures completed (Audit, AC Tune-Up, Duct Sealing)

- 4. Savings associated with work performed
- 5. Documents and records provided by Contractors
- 6. Database of these records with backup system in place

OG&E will compile the data from each project and report the total annual energy savings and the peak demand savings as required by the Rule.

#### New Program: Multi-Family Program

#### Savings Measurement

OG&E will utilize the Residential Deemed Savings, Installation and Efficiency Standards estimate energy savings for the Multi-Family Program. In some instances, the program service providers may elect to report savings based on the National Energy Audit Tool (NEAT) report.

#### Data Tracking

OG&E will maintain and track data on each of the Multi-Family Program projects performed either through an online tool or paper form.

This data will include, but not be limited to:

- 1. Identifiers of the Property for OG&E System
- 2. Property Qualifications
- 3. Property measures completed
- 4. Savings associated with work performed
- 5. Documents and records provided by Contractors
- 6. Database of these records with backup system in place

OG&E will compile the data from each project and report the total annual energy savings and the peak demand savings as required by the Rule.

#### New Program: Window Unit A/C Program

#### Savings Measurement

OG&E will utilize the Residential Deemed Savings, Installation and Efficiency Standards to estimate energy savings for the Window Unit A/C Program. In some instances, the program service providers may elect to report savings based on the National Energy Audit Tool (NEAT) report.

#### Data Tracking

OG&E will maintain and track data on each of the program projects performed either through an online tool or paper form.

This data will include, but not be limited to:

1. Identifiers of the Property for OG&E System

- 2. Property Qualifications
- 3. Property measures completed
- 4. Savings associated with work performed
- 5. Documents and records provided by Contractors
- 6. Database of these records with backup system in place

OG&E will compile the data from each project and report the total annual energy savings and the peak demand savings as required by the Rule.

#### Commercial Lighting Program

#### Savings Measurement

OG&E will utilize the Commercial Deemed Savings, Installation and Efficiency Standards to estimate energy savings for the Commercial Lighting Program. In some instances, the program service providers may elect to report savings based on the National Energy Audit Tool (NEAT) report.

#### Data Tracking

OG&E will maintain and track data on each of the Commercial Lighting Program projects performed either through an online tool or paper form.

This data will include, but not be limited to:

- 1. Identifiers of the Property for OG&E System
- 2. Property Qualifications
- 3. Property measures completed
- 4. Savings associated with work performed
- 5. Documents and records provided by Contractors
- 6. Database of these records with backup system in place

OG&E will compile the data from each project and report the total annual energy savings and the peak demand savings as required by the Rule.

## *New Program: Commercial and Industrial Standard Offer Program* (*"SOP"*)

#### Savings Measurement

OG&E will utilize the Commercial Deemed Savings, Installation and Efficiency Standards to estimate energy savings for the SOP. In some instances, the SOP service providers may elect to report savings based on the National Energy Audit Tool (NEAT) report.

#### Data Tracking

OG&E will maintain and track data on each of the SOP projects performed either through an online tool or paper form.

This data will include, but not be limited to:

- 1. Identifiers of the Property for OG&E System
- 2. Property Qualifications
- 3. Property measures completed
- 4. Savings associated with work performed
- 5. Documents and records provided by Contractors
- 6. Database of these records with backup system in place

OG&E will compile the data from each project and report the total annual energy savings and the peak demand savings as required by the Rule.

#### New Program: Commercial Tune-Up Program

#### Savings Measurement

OG&E will utilize the Commercial Deemed Savings, Installation and Efficiency Standards to estimate energy savings for the Commercial Tune-Up Program. In some instances, the program service providers may elect to report savings based on the National Energy Audit Tool (NEAT) report.

#### Data Tracking

OG&E will maintain and track data on each of the program projects performed either through an online tool or paper form.

This data will include, but not be limited to:

- 1. Identifiers of the Property for OG&E System
- 2. Property Qualifications
- 3. Property measures completed
- 4. Savings associated with work performed
- 5. Documents and records provided by Contractors
- 6. Database of these records with backup system in place

OG&E will compile the data from each project and report the total annual energy savings and the peak demand savings as required by the Rule.