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AZ CORP COMMISSION
DOCKET CONTROL

March 1, 2011

Steven Olea
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Re: Docket Nos. G-04204A-06-0463, G-04204A-06-0013 and G-04204A-05-0831
Decision No. 70011 (November 27, 2007)

Mr. Olea,

Pursuant to ACC Decision No. 70011 UNS Gas, Inc. ("UNS Gas") is required to submit semi-annual Demand-Side Management ("DSM") program progress reports on March 1st and September 1st of each year in accordance with Commission Staff's recommendations. Enclosed please find UNS Gas' Semi-Annual DSM Program Progress Report for the reporting period of July 1, 2010 through December 31, 2010. The marketing materials for the reported DSM programs are being filed directly with Commission Staff on the attached CD. The measurement, evaluation, and research report is in the process of being finalized and will be submitted to Commission Staff when it is completed.

If you have any questions, please contact me at (520) 884-3680.

Sincerely,

Jessica Bryne
Regulatory Services

Enclosures: Report and CD

cc: Docket Control, ACC
Julie McNeely-Kirwan, ACC (with CD)
Compliance Section, ACC
Shannon Kanlan, ACC

Arizona Corporation Commission
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UNS Gas, Inc.

Semi-Annual Demand-Side Management Programs Progress Report

July through December 2010

UNS GAS, INC.
SEMI-ANNUAL DSM PROGRESS REPORT FOR THE PERIOD:
July through December 2010

This progress report includes the following information for all UNS Gas, Inc. ("UNS Gas") Demand-Side Management ("DSM") Programs that were in place from July through December 2010 including programs for residential, non-residential, and low-income customers:

- a brief description of the programs;
- program modifications;
- program goals, objectives, and savings targets;
- levels of participation;
- description of Measurement, Evaluation and Research results;
- kW, kWh, and therm savings;
- problems encountered and proposed solutions;
- costs incurred during the reporting period disaggregated by type of costs, such as administrative , rebate, and monitoring;
- findings from all research projects;
- terminated programs; and
- other significant information.

A summary detailing all DSM program expenses are provided in Tables 1 and 2; program energy savings are provided in Tables 3 and 4; societal benefits are provided in Table 5; lifetime environmental savings are provided in Table 6; and program savings and expenses since inception are provided for all programs in Table 7.

UNS GAS, INC.
SEMI-ANNUAL DSM PROGRESS REPORT FOR THE PERIOD:
July through December 2010

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Table 1

DSM PROGRAM EXPENSES: JULY – DECEMBER 2010

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implementation	Program Marketing	Planning & Admin	Measurement, Evaluation & Research	Program Total Cost
Residential Programs								
Low-Income Weatherization	\$ 74,675	\$ 3,779	\$ -	\$ 1,735	\$ -	\$ 3,806	\$ 4,800	\$ 88,794
Energy Smart Homes	\$ -	\$ 1,062	\$ 2,028	\$ 27,378	\$ 2,675	\$ 255	\$ 9,533	\$ 42,929
Efficient Home Heating	\$ 87,725	\$ 7,996	\$ 4,347	\$ 19,933	\$ 22,148	\$ 7,736	\$ 5,620	\$ 155,504
Total for Residential Programs	\$ 162,400	\$ 12,836	\$ 6,375	\$ 49,044	\$ 24,823	\$ 11,796	\$ 19,953	\$ 287,228
Commercial Programs								
C&I Facilities Gas Efficiency	\$ 66,913	\$ 3,629	\$ 4,223	\$ 10,888	\$ 500	\$ 15,334	\$ 2,259	\$ 103,745
Total for Commercial Programs	\$ 66,913	\$ 3,629	\$ 4,223	\$ 10,888	\$ 500	\$ 15,334	\$ 2,259	\$ 103,745
Portfolio Totals	\$ 229,313	\$ 16,466	\$ 10,598	\$ 59,932	\$ 25,323	\$ 27,129	\$ 22,212	\$ 390,972

Program Costs	\$ 390,972
Program Development, Analysis, & Reporting Software	\$ 67,850
Baseline Study	\$ 112,300
TOTAL	\$ 571,122

Table 2

DSM PROGRAM EXPENSES: JANUARY – DECEMBER 2010

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implementation	Program Marketing	Planning & Admin	Measurement, Evaluation & Research	Program Total Cost
Residential Programs								
Low-Income Weatherization	\$ 123,059	\$ 4,481	\$ -	\$ 4,444	\$ 500	\$ 10,508	\$ 4,800	\$ 147,792
Energy Smart Homes	\$ 1,200	\$ 3,224	\$ 5,573	\$ 77,808	\$ 7,298	\$ 8,508	\$ 9,533	\$ 113,145
Efficient Home Heating	\$ 144,575	\$ 11,772	\$ 13,130	\$ 31,994	\$ 31,680	\$ 19,399	\$ 5,620	\$ 258,170
Total for Residential Programs	\$ 268,834	\$ 19,478	\$ 18,702	\$ 114,247	\$ 39,478	\$ 38,415	\$ 19,953	\$ 518,107
Commercial Programs								
C&I Facilities Gas Efficiency	\$ 70,963	\$ 5,544	\$ 7,568	\$ 20,562	\$ 500	\$ 17,845	\$ 2,259	\$ 125,240
Total for Commercial Programs	\$ 70,963	\$ 5,544	\$ 7,568	\$ 20,562	\$ 500	\$ 17,845	\$ 2,259	\$ 125,240
Portfolio Totals	\$ 339,797	\$ 25,022	\$ 26,270	\$ 134,809	\$ 39,978	\$ 56,260	\$ 22,212	\$ 644,347

Program Costs	\$ 644,347
Program Development, Analysis, & Reporting Software	\$ 112,279
Baseline Study	\$ 127,847
TOTAL	\$ 884,473

Definitions

Rebates & Incentives – total amount spent on customer rebates, incentives, and installation of low-income weatherization.

Training and Technical Assistance – total amount spent on energy efficiency training and technical assistance. Training may be for utility employees or contractors.

Consumer Education – total dollars used to support general consumer education about energy efficient improvements.

Program Implementation – program delivery costs associated with implementing programs including implementation contractor labor and overhead costs, as well as other direct program delivery costs.

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Program Marketing – includes all expenses related to marketing programs and increasing DSM consumer awareness (direct program marketing costs as opposed to general consumer education).

Planning and Administration – costs to plan, develop, and administer programs including management of program budgets, oversight of the request for proposal (“RFP”) process, oversight of implementation contractors, program development, program coordination, and general overhead expenses.

Measurement, Evaluation, and Research (“MER”) – identification of current baseline efficiency levels and the market potential of DSM measures; process evaluations; verification of installed energy efficient measures; tracking of savings; and identification of additional energy efficiency research.

Program Development, Analysis, and Reporting Software – costs to research and develop new DSM program opportunities, provide analysis of new programs and measures, and develop a database to track participation, savings, and benefits. These costs are essential to comply with reporting and rules requirements.

Baseline Study – expenditures for a separate UNS Gas Baseline Study approved in Arizona Corporation Commission Decision No. 71107 (June 5, 2009).

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Table 3

DSM ENERGY SAVINGS: JULY – DECEMBER 2010

DSM Program	Capacity Savings MW	Annual MWh Savings	Annual Therm Savings	Lifetime MWh Savings	Lifetime Therm Savings
Low-Income Weatherization	0.00	109.3	2,080	1,914	36,400
Energy Smart Homes	0.00	0.0	0	0	0
Efficient Home Heating	0.00	0.0	41,936	0	629,042
C&I Facilities Gas Efficiency	0.00	0.0	77,670	0	1,165,049
Portfolio Totals	0.00	109.3	121,686	1,914	1,830,490

Table 4

DSM ENERGY SAVINGS: JANUARY – DECEMBER 2010¹

DSM Program	Capacity Savings MW	Annual MWh Savings	Annual Therm Savings	Lifetime MWh Savings	Lifetime Therm Savings
Low-Income Weatherization	0.00	178.7	3,008	3,127	52,640
Energy Smart Homes	0.00	4.0	2,838	120	85,144
Efficient Home Heating	0.00	0.0	78,882	0	1,183,227
C&I Facilities Gas Efficiency	0.00	0.0	81,910	0	1,228,648
Portfolio Totals	0.00	182.7	166,638	3,247	2,549,659

Table 5

DSM SOCIETAL BENEFITS: JANUARY – DECEMBER 2010

DSM Program	Societal Benefits	Societal Costs	Net Benefits
Low-Income Weatherization	\$ 174,438	\$ 174,438	\$ -
Energy Smart Homes	\$ 59,995	\$ 115,218	\$ (55,223)
Efficient Home Heating	\$ 698,486	\$ 408,860	\$ 289,626
C&I Facilities Gas Efficiency	\$ 725,299	\$ 102,561	\$ 622,738
Portfolio Totals	\$ 1,658,218	\$ 801,077	\$ 857,141

**Consistent with Commission Staff's analysis in Commission Decision No. 70180 (February 27, 2008), the societal benefits for low-income weatherization are equal to or greater than the societal costs when taking the environmental benefits into account.*

Table 6

DSM LIFETIME ENVIRONMENTAL SAVINGS: JANUARY – DECEMBER 2010

DSM Program	Lifetime SO _x Reduction (lbs)	Lifetime NO _x Reduction (lbs)	Lifetime CO ₂ Reduction (lbs)	Lifetime Water Reduction (gallons)
Low-Income Weatherization	2,439	7,880	3,488,664	728,604
Energy Smart Homes	94	303	1,114,849	27,987
Efficient Home Heating	0	0	13,962,073	0
C&I Facilities Gas Efficiency	0	0	14,498,052	0
Portfolio Totals	2,533	8,183	33,063,638	756,592

¹ Full year 2010 energy savings have been adjusted to reflect the changes from the most recent MER reports.

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Table 7

DSM SAVINGS & EXPENSES SINCE PROGRAM INCEPTION: JANUARY 2007 – DECEMBER 2010

DSM PROGRAM	Start Date	Program Participants		Program Expenses		MWh Savings			Therm Savings		
		Jan - Dec	Program Inception to Date	Jan - Dec	Program Inception to Date	Jan - Dec	Total Annual ^a	Program Inception to Date ^b	Jan - Dec	Total Annual ^a	Program Inception to Date ^b
Low-Income Weatherization	2007	94	301	\$ 147,792	\$ 452,450	178.7	201.2	257.2	3,008	33,279	109,548
Energy Smart Homes	2008	3	12	\$ 113,145	\$ 382,415	4.0	8.6	13.2	2,838	7,112	11,386
Efficient Home Heating	2008	489	876	\$ 258,170	\$ 495,945	NA	NA	NA	78,882	149,428	240,416
C&I Facilities Gas Efficiency	2008	11	23	\$ 125,240	\$ 276,812	NA	NA	NA	81,910	33,279	109,548
Program Development, Analysis, & Reporting Software	NA	NA	NA	\$ 112,279	\$ 332,466	NA	NA	NA	NA	NA	NA
Baseline Study	2009	NA	NA	\$ 127,847	\$ 132,954	NA	NA	NA	NA	NA	NA
TOTAL		597	1,212	\$ 884,473	\$ 2,073,042	182.7	209.8	270.4	166,638	223,098	470,899

a. Total savings for current year for all energy efficiency measures installed since program inception.

b. Total savings for all years for all energy efficiency measures installed since program inception.

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UNS GAS LOW-INCOME WEATHERIZATION PROGRAM

Description

The UNS Gas Low-Income Weatherization ("LIW") Program is designed to improve the energy efficiency of homes for customers whose income falls within the defined federal poverty guidelines. Steps taken in this Program will reduce gas and electric bills for eligible customers; improve comfort and quality of life. Energy savings realized from the LIW Program will allow low-income customers to better utilize the limited income they receive for other necessary items such as rent, food, or medical expenses.

Program Modifications

Pursuant to Arizona Corporation Commission ("Commission") Decision No. 71623 (April 14, 2010), annual funding for the LIW Program was increased to \$200,000.

Program Goals and Objectives

- Increase the number of homes weatherized each year;
- Lower the average household utility bills of low-income customers by utilizing energy conservation measures in the weatherization process; and
- Improve the quality of life for the customers by providing them with a safe and healthy home.

Level of Participation

A total of 65 households received weatherization assistance during this reporting period, and 94 households received weatherization assistance for calendar year 2010.

Measurement, Evaluation and Research Results

The Arizona Energy Office ("AEO"), with billing data from UNS Gas and other Arizona gas and electric utilities, is analyzing and tracking energy use in weatherized homes statewide. As their database grows, a more accurate analysis of the impact of weatherization activities will emerge. UNS Gas will report energy savings from weatherization activities based upon the most recent AEO report. The AEO does not report any kW demand savings. The AEO report is attached as Appendix 2.

The most recent AEO report from January 2011 is summarized below:

Utility Bill Analysis

- To date, an analysis of 235 homes has been completed on homes utilizing Arizona Public Service Company ("APS"), Tucson Electric Power Company, UNS Gas, UNS Electric, Inc. ("UNS Electric"), and Southwest Gas Corporation utility data. This analysis is ongoing, and new data will be updated to these values on a quarterly basis.
- Savings to Investment Ratios ("SIR") are provided for total investment from all funding spent (diagnostics, energy measures, health and safety measures) and for energy related measures only (diagnostics and energy measures).
- Present value is based on 17.5 years measure life, discount rate of 3% and a utility cost escalation rate of 3%.
- The combined SIR of all jobs reviewed to date for funds spent on diagnostics, energy measures, and health and safety measures was 1.19. Health and saving represented 13% of expenditures.
- The combined SIR of all jobs reviewed to date for funds spent on energy measures and diagnostics was 1.35.

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- The average saving per home reviewed was 2667 kWh and 32 therms of natural gas (gas therms average includes all electric homes).

kW, kWh, and Therm Savings

The savings for this reporting period are listed below:

No. of Homes	kW savings	kWh savings	Therm savings
65	0	109,347	2,080

Problems Encountered and Proposed Solutions

There were no additional problems encountered for this reporting period.

Costs Incurred

Costs incurred for the LIW Program during the reporting period are listed below:

DSM Program	Rebates & Incentives *	Training & Technical Assistance	Consumer Education	Program Implementation ^b	Program Marketing	Planning & Admin	Measurement & Evaluation	Program Total Cost
Low-Income Weatherization	\$ 74,675	\$ 3,779	\$ -	\$ 1,735	\$ -	\$ 3,808	\$ 4,800	\$ 88,794

a. Includes \$9,472 for health and safety related repairs and \$7,804 for Weatherization Agencies administration expenses.

Findings from All Research Projects

No research projects were performed during this reporting period.

Other Significant Information

The Coconino County Community Services (“CCCS”) Program Director resigned in 2010 and a new Director was hired. During this transition period CCCS completed one job in 2010. However, the new Director has provided UNS Gas with estimates on 7 jobs started in late December 2010 that will be completed the 1st quarter of 2011. UNS Gas anticipates an increase in participation from CCCS in 2011.

Due to the April funding increase, approximately \$70,000 in additional funds was available to the agencies for calendar year 2010. This additional funding allowed the agencies to provide assistance to an increased number of families. All agencies, with the exception of CCCS utilized their entire budget allocations in 2010.

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UNS GAS ENERGY SMART HOMES PROGRAM

Description

The Residential New Construction Program for UNS Gas is marketed under the Energy Smart Homes ("ESH") name. The ESH Program emphasizes the whole-house approach to improving health, safety, comfort, durability, and energy efficiency. The ESH Program promotes homes that meet the Environmental Protection Agency ("EPA")/Department of Energy ENERGY STAR® Home performance requirements. To encourage participation, the ESH Program provides incentives to homebuilders for each qualifying home. Required on-site inspections and field testing of a random sample of homes to meet ENERGY STAR® Home performance requirements are conducted by third-party RESNET®-certified energy raters selected by each builder. Components of ESH include development of branding, builder training curriculum, and marketing collateral.

Program Modifications

In order to reduce costs, the ESH Program is now supported by staff located in Mohave County, who also supports the UNS Electric ESH Program and other Unisource Energy Services DSM programs. This practice has successfully reduced costs while maintaining a high level of service.

In an effort to increase participation, UNS Gas filed a request with the Commission for approval of a joint utility Program with APS. This request was approved by Commission Decision No. 72023 (December 10, 2010). UNS Gas and APS program staff are planning to implement the joint program in 2011.

Program Goals, Objectives, and Savings Targets

- Work with local builders to construct energy efficient homes;
- Train builder construction staff and subcontractors in advanced building science concepts to increase energy efficiency through improved design and installation practices;
- Transform the market and improve construction practices in the UNS Gas service territory;
- Reduce peak demand and overall energy consumption in new homes;
- Stimulate construction of new homes that are inspected and tested to assure energy performance;
- Assist builder sales agents with promoting and selling energy-efficient homes;
- Increase homebuyer awareness and understanding of energy-efficient building practices and the benefits of purchasing an energy efficient home; and
- Achieve an annual participation of 9% to 11% of new home units.

Levels of Participation

There are currently 11 builders participating in the ESH Program. There were no homes completed during this reporting period. A total of three homes were completed during the calendar year 2010.

Measurement, Evaluation and Research Results

Navigant Consulting completed an evaluation of the ESH Program for the 2008-2009 program years. All savings claimed by the ESH Program were deemed verified so the program has a realization rate of 100 %. The Program had a B/C ratio of 0.1 due to high start up costs and low participation. The MER report is in the process of being finalized and will be submitted to Commission Staff when it is completed.

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kW, kWh, and Therm Savings

Measure	No. of Homes	kW savings	kWh savings	Therm savings
Tier 1	0	0	0	0
Tier 2	0	0	0	0
Tier 3	0	0	0	0
Total	0	0	0	0

Problems Encountered and Proposed Solutions

Builder recruitment in the UNS Gas territory has been hampered by the existing ENERGY STAR® Home Program offered through APS. In response, UNS Gas filed a request for a joint utility ENERGY STAR® Home Program on November 12, 2009. This request was approved by Commission Decision No. 72023 (December 10, 2010). UNS Gas and APS program staff are planning to implement the joint program in 2011 and UNS Gas anticipates greater participation in the ESH Program as a result.

Costs Incurred

Costs incurred for the ESH Program during the reporting period are listed below:

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implementation *	Program Marketing	Planning & Admin	Measurement & Evaluation	Program Total Cost
Energy Smart Homes	\$ -	\$ 1,062	\$ 2,028	\$ 27,376	\$ 2,675	\$ 255	\$ 9,533	\$ 42,929

a. Includes \$27,376 paid to Conservation Services Group, the Implementation Contractor.

Findings from All Research Projects

No research projects were undertaken during this reporting period.

Other Significant Information

In anticipation of additional builder cost and the potential energy savings impacts of achieving EPA's ENERGY STAR versions 2.5 and 3.0 coming in 2011, UNS Gas may need to reevaluate the current \$400 incentive and overall ESH Program cost effectiveness. Additionally, participating Home Energy Raters will be required to undergo Version 3.0 training in order to maintain their rater certifications. UNS Gas may provide training scholarships or similar offerings to the raters who contributed to production in 2010.

No new marketing materials were produced during this reporting period.

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UNS GAS EFFICIENT HOME HEATING PROGRAM

Description

The Efficient Home Heating (“EHH”) Program promotes the purchase and installation of ENERGY STAR® qualified, high-efficiency, gas-fueled furnaces that meet or exceed the minimum ENERGY STAR® standard of 90% Annual Fuel Utilization Efficiency. Incentives for the purchase of qualifying high-efficiency equipment are paid directly to homeowners.

Program Modifications

On September 2, 2009, UNS Gas filed a request for approval to redesign its EHH Program. On April 2, 2010, the Company filed an amended request for approval to redesign and enhance its EHH Program, to be called the Existing Homes Program. The UNS Gas EH Program was approved by Commission Decision No. 72045(December 10, 2010). The expanded EHH Program will continue to provide incentives for high efficiency gas-fueled furnaces, and adds incentives for home performance services such as sealing leaky duct work, installing insulation, air sealing, and installing thermal air barriers in existing buildings. It also includes incentives for high efficiency storage water heaters. UNS Gas has contracted with Conservation Services Group to implement the EHH Program during the second quarter of 2011.

Program Goals and Objectives

- Promote the installation of high-efficiency gas-fueled furnaces;
- Reduce customer energy bills, provide equal or better comfort conditions, conserve energy and benefit the environment; and
- Achieve target participation of 700 + furnaces installed per year.

Level of Participation

258 furnaces were installed during this reporting period at an average incremental cost of \$623. A total of 489 furnaces were installed for calendar year 2010. This represents an 80% increase in participation over 2009.

Measurement, Evaluation and Research Results

Navigant Consulting completed an evaluation of the EHH Program for the 2008-2009 program years. As a result new savings values and incremental costs have been incorporated into this report. Savings were reduced due to a new, more accurate methodology in estimating per unit measure savings from furnaces installed. The realization rate was 77% and the EHH Program evaluation showed a B/C ratio of 1.5. The MER report is in the process of being finalized and will be submitted to Commission Staff when it is completed.

kW, kWh, and Therm Savings

No. of Furnaces Installed	kW savings	kWh savings	Therm savings
258	NA	NA	41,936

Problems Encountered and Proposed Solutions

No problems were encountered during this reporting period.

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Costs Incurred

Costs incurred for this program during the reporting period are listed below:

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implementation ^a	Program Marketing ^b	Planning & Admin	Measurement & Evaluation	Program Total Cost
Efficient Home Heating	\$ 87,725	\$ 7,998	\$ 4,347	\$ 19,933	\$ 22,148	\$ 7,736	\$ 5,620	\$ 155,504

a. Includes \$3,501 paid to KEMA, the Implementation Contractor for processing rebates.

b. Includes \$1,525 in contractor rebates

Other Significant Information

Marketing efforts for 2010 consisted of a bill insert, print advertisements, and web marketing. Marketing began in October 2010 to encourage participation before and during the heating season.

Heating, Ventilating and Air Conditioning (“HVAC”) Contractors continue to be actively recruited for participation in the EHH Program. To date, 108 contractors throughout the UNS Gas service territory have signed agreements to participate in the EHH Program.

UNS Gas participated in several community events to promote energy conservation and the EHH Program, including the:

- Energy Safari, Prescott, Arizona;
- Mohave County Fair, Kingman, Arizona;
- Coconino Community College Sustainable Foundation, Flagstaff, Arizona and;
- Creative Energy Fair, Prescott, Arizona.

These events were attended by several thousand potential participants and HVAC Contractors. As a result of UNS Gas participation, additional HVAC Contractors signed up to be participating contractors in the EHH Program.

A list of new marketing materials for this Program is shown in Appendix 1 and available on the attached CD.

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UNS GAS C&I FACILITIES GAS EFFICIENCY PROGRAM

Description

The Commercial and Industrial (“C&I”) Facilities Gas Efficiency Program is designed to promote the installation of high-efficiency, gas-fueled equipment and systems at existing commercial and industrial facilities within the UNS Gas service area.

Program Modifications

No modifications were made to the Program during this reporting period. On September 2, 2009, UNS Gas submitted a greatly expanded Program re-design for Commission approval. This proposal has not yet been approved.

Program Goals and Objectives

- Help commercial and industrial customers reduce and manage their energy costs;
- Reduce greenhouse gas emissions; and
- Lower overall rates and energy costs compared to other resource options.

Level of Participation

Seven applications were received during this reporting period, and UNS Gas paid rebates totaling \$67,038 to these seven participants. For calendar year 2010 a total of 14 applications were received and 11 businesses participated in the Program.

Measurement, Evaluation and Research Results

Navigant Consulting completed an evaluation of this Program for the 2008-2009 program years. As a result new savings values and incremental costs have been incorporated into this report. Savings were increased mainly due to a more accurate methodology of determining savings from boilers installed than that employed by the Implementation Contractor. The realization rate was 181% and the Program evaluation showed a B/C of 5.1. The MER report is in the process of being finalized and will be submitted to Commission Staff when it is completed.

kW, kWh, and Therm Savings

Measure	No. Installed	Therm savings	Incremental Cost
High-Efficiency Boilers	10	68,017	\$ 1,703.00
High-Efficiency Furnaces	21	8,027	\$ 375.00
Energy Efficient Storage Water Heaters	6	1,626	\$ 3,084.00
Totals	37	77,670	

Problems Encountered and Proposed Solutions

Though UNS Gas is encouraged by the existing participation, the following issues are contributing to reduced Program participation:

- The current economic climate is forcing businesses to reduce spending when possible, so there is little demand from businesses for energy efficient gas-fired equipment due to increased incremental costs; and
- Suppliers typically don’t carry inventory of energy efficient gas-fired equipment due to lack of demand.

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UNS Gas is committed to increasing Program participation and has taken the following steps to do so.

- Dedicated a UNS Gas representative to promote all DSM programs within the service area; and
- Filed a Program re-design for Commission approval in November 2009. The proposed re-design includes several new measures for energy-efficient gas fired equipment and increased incentives to help promote both new and existing measures.

Costs Incurred

Costs incurred for the C&I Facilities Program during the reporting period are listed below:

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implementation *	Program Marketing	Planning & Admin	Measurement & Evaluation	Program Total Cost
C&I Facilities Gas Efficiency	\$ 66,913	\$ 3,629	\$ 4,223	\$ 10,888	\$ 500	\$ 15,334	\$ 2,259	\$ 103,745

a. Includes \$6,495 paid to KEMA, the Implementation Contractor.

Other Significant Information

Presentations were made to numerous civic groups during this reporting period, including:

- City of Nogales;
- Santa Cruz County;
- Coconino Community College;
- Remax Realtors of Flagstaff, Arizona;
- Nogales Unified School District;
- Nogales Zoning & Building Department and Inspectors;
- Board of Realtors and Rotarians in Lake Havasu City, Arizona;
- Town of Taylor Building Officials and the City Financial Manager;
- Facilities staff of Mohave County;
- Northern Arizona University Facilities Staff and Director of Utilities; and
- Northern Arizona Builders Association.

UNS Gas also staffed a booth at the Creative Energy Fair in Prescott, Arizona and the Prescott Builders Association Fair.

UNS Gas has expended a tremendous effort to promote the Program to UNS Gas employees, retailers, wholesalers, distributors, public officials, and end users. Given the limited budget and the vastness of the service area, the marketing emphasis is on the sales and distribution channels of qualifying equipment. Promotion among UNS Gas employees is ongoing as these employees interface with customers on a daily basis. A listing of registered commercial contractors in the UNS Gas service area has also been developed.

There were 260 hits on the UNS Gas web site seeking program information. No new marketing materials were produced during this reporting period.

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APPENDIX 1 – MARKETING MATERIALS

Efficient Home Heating Program:

- UNSG EHH insertv7FINAL
- UES EHH ad v1
- online marketing

UNS GAS, INC.
SEMI-ANNUAL DSM PROGRESS REPORT FOR THE PERIOD:
July through December 2010

APPENDIX 2 – MEASUREMENT, EVALUATION AND RESEARCH REPORTS

- Arizona Energy Office Training, Monitoring, and Evaluation Report – January 2011

**ARIZONA ENERGY OFFICE
TRAINING, MONITORING AND EVALUATION REPORT
FISCAL YEAR 2010 ANNUAL REPORT
January 2011
Unisource Gas**

Re: Arizona Department of Commerce Contract M034-08

Training and Monitoring for Weatherization

Southwest Building Science Training Center

The Southwest Building Science Training Center (Training Center), operated by the Foundation for Senior Living Home Improvement (FSL) and funded through the AEO and local utilities, provides Arizona low-income weatherization technicians with the knowledge and skills needed to successfully perform diagnostics and repairs on Arizona's housing stock. The Energy Office has entered into agreement with FSL to fund a full time position to develop, coordinate and implement a comprehensive training program at the training center and an administrative assistant position.

The Training Center is currently seeking permit approval to expand the training center by developing a multistory training lab that will be used to provide real world hands on training to the new green workforce. Funding has been committed utilizing American Recovery and Reinvestment Act of 2009 (ARRA) funds for the construction of an expanded diagnostic lab. FSL has awarded the design contract to the architecture firm Moran Downes and it is expected that work on the new training lab will start upon completion of plan review by the City of Phoenix. .

Training center courses

<http://www.fsl.org/services/HomeEnergy/hecourses.html>

The Center, in partnership with the Building Performance Institute, Inc. (BPI), provides nationally recognized building science certifications to Arizona's weatherization agencies. All agencies have BPI Certified staff members or contractors that are BPI certified.

In 2010 the Training Center has provided 5,080 training hours (attendees times class hours) and 309 course attendees. To date 272 contractors have been certified through BPI.

Details on BPI

<http://www.bpi.org/>

The Training Center has implemented a WAP boot camp. The Boot Camp is a five day training that covers the basics of building science, pressure diagnostics, health and safety and residential energy auditing.

The Training Center has implemented the Weatherization (WAP) contractor mentorship program. The mentorship program is designed specifically to bridge the gap between classroom training and field experience by providing on the job training for new contractors. This training is provided by BPI

certified contractors with a minimum of three year experience in Home Performance Contracting who have been approved through a review process. AEO will fund 16 hours of mentoring per contractor.

Local agencies have the ability to expand the hours of mentorship per contractor utilizing their training funds.

The Training Center has implemented a Lead Renovator Repair and Painting certification class. On April 22nd 2010 the new EPA Regulations went into effect regarding lead safe work practices. All contractors working on houses Pre-1978 are now required to be registered with the EPA as a lead renovator firm. Any contractors performing work on houses must now have at least one person on their crew that is "Lead Renovator" certified. This certification requires an 8 hour training which involves both a Power Point slide presentation and a "Hands On" section to teach lead safe practices when working on a home with a potential for Lead based paint. Certification requires the participant to pass both a written and field skills test.

The Training Center was also awarded a grant from the Department of Energy to expand the curriculum and tailor it towards the Auditor, Inspector and Crew Members of the technicians in the field. This is a two year grant that will help deliver the skilled workers that will be needed to conduct energy retrofits on existing housing.

Peer-to-Peer Fiscal and Technical Procedures

The Arizona WAP has formed peer-to-peer working groups that allow the fiscal and technical staff from the agencies and the AEO to meet and discuss issues that arise in the program. Agencies are able to share solutions to common problems and other information. These peer-to-peer meetings occur every two months and have been a great arena to discuss any changes or improvement to the program.

Agency Personnel Performance Reviews

A review and monitoring process to evaluate the competency of agency personnel performing the various requirements of the weatherization program was developed for the statewide weatherization assistance program. Based on this process, additional one-on-one training and technical assistance is provided on an as-needed basis.

Inspections

The Arizona WAP has implemented a monitoring program that focuses on determining areas that need improvement and utilizes the monitoring process to implement needed changes. The areas covered include: auditing, diagnostics, testing and measures completed and program operations. This process begins with the review of 100% of the technical reports for auditing, diagnostics, testing and work completed each month. These reports can highlight instances where opportunities were missed or program requirements were not followed. When there are concerns with some element of the report, a site visit is conducted to address the concerns. At the job site, the diagnostic, testing and work are reviewed to determine if any improvements can be made. A minimum of 20% of the job sites will be

visited with visits taking place approximately twice a month. Based on the site visit results, follow-up training and technical assistance is provided to the local agency. For agencies where the technical reports do not show concerns, the site visit consists of monitoring a number of randomly selected homes and reviewing the diagnostics, testing and work completed. These efforts, combined with the training and competence programs, have a goal of ensuring that the program is providing the clients with a high return on Southwest's investment, while maintaining or improving the customers' health and safety.

With increased federal funding, a total of five Weatherization field monitors have been hired.

Utility Bill Analysis

To date, an analysis of 235 homes has been completed on homes utilizing APS, TEP, Unisource Gas and Electric and Southwest Gas utility data. This analysis is ongoing, new data will be updated to these values on a quarterly basis.

Provided are Savings to Investment Ratios (SIR) for total investment from all funding spent (diagnostics, energy measures and health and safety measures) and for energy related measure only (diagnostics and energy measures).

Assumptions

Present value is based on 17.5 years measure life, discount rate of 3% and an utility cost escalation rate of 3%.

Results Summary

The combined SIR of all jobs reviewed to date for funds spent on diagnostics, energy measures and health and safety measures was 1.19. Health and saving represented 13% of expenditures.

The combined SIR of all jobs reviewed to date for funds spent on energy measures and diagnostics was 1.35

The average saving per home reviewed was 2667 kWh and 32 therms of natural gas (gas therms average includes all electric homes).