2009 Demand-Side Management Annual Status Report

Public Service Company of Colorado
April 5, 2010

2009 Demand-Side Management Annual Status Report

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Executive Summary

Public Service Company of Colorado ("Public Service" or the "Company") submits this combined electric and natural gas 2009 Colorado Demand-Side Management Annual Status Report ("Status Report") to the Colorado Public Utilities Commission ("Commission") at the conclusion of its first year of a new era in demand-side management ("DSM") for the Company and its customers. In this filing, Public Service will report on its 2009 electric and natural gas savings achievements of approximately 220 GWh and 308,761 Dth for its electric and gas DSM programs.

The electric savings of 220 GWh are a significant accomplishment compared to both the Commission ordered goal of 150 GWh and the Settlement approved goal of 175 GWh for 2009. The gas savings of 308,761 Dth were also a significant accomplishment for this first year of a complete gas DSM Plan in Colorado, but fell short of our approved goal of 318,141 Dth. To achieve these savings the Company spent a total $55.5 million ($43.9 million – electric, $11.6 million – natural gas) on its electric and natural gas programs, thereby under-spending the approved budgets of $50.5 and $12.6 million respectively. Below in Figures 1 and 2 are Public Service's historical achievements and expenditures for its electric and natural gas DSM programs.

Figure 1: Historical Electric Program Savings and Expenditures

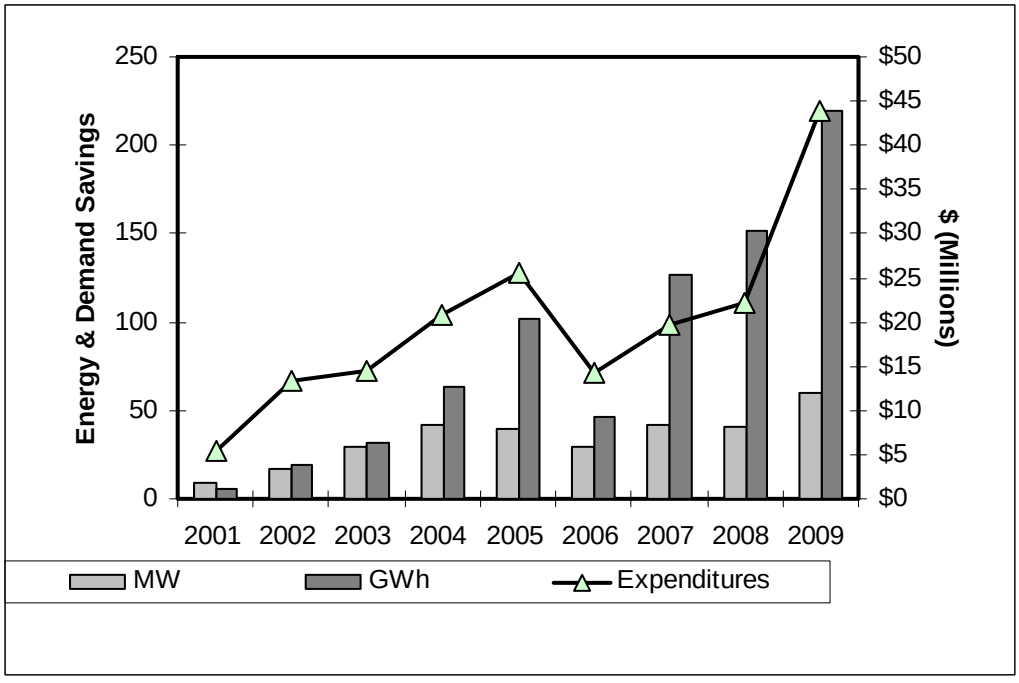
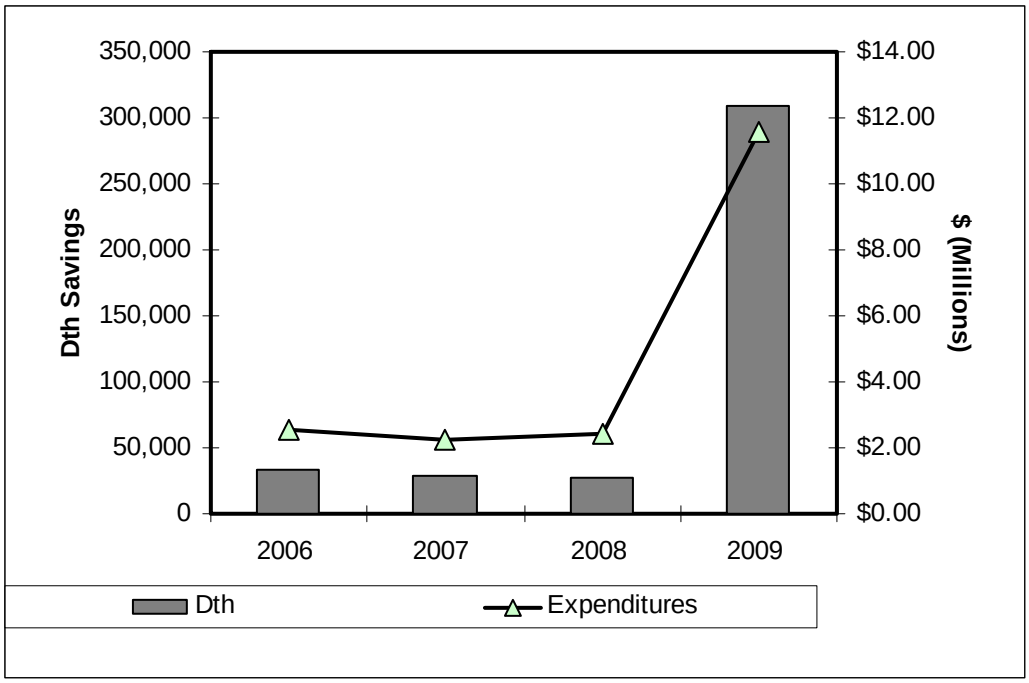


Figure 2: Historical Natural Gas Program Savings and Expenditures



History of Plan

During the last decade, Public Service has entered into several regulatory settlements involving demand-side management in conjunction with its integrated resource/least-cost planning process. The following paragraphs describe those settlements:

- In the 1996 Integrated Resource Plan Settlement Agreement (Decision C98-1042, Docket No. 97A-297E), the Company committed up to $10M for DSM over four years through two bid processes. The first focused on residential air conditioning load control and lighting for commercial customers ("Bid 2000") and the second followed the completion of the Bid 2000 program.
- In the 1999 Integrated Resource Plan DSM Stipulation and Settlement Agreement (Decision C00-1057, Docket No. 00A-008E), the Company committed to use its best efforts to acquire 124 MW of cost-effective DSM resources through the 1999 IRP Resource Acquisition Period ending December 31, 2005. The Company was authorized to spend no more than $75 million (Year 2000 dollars) to obtain the 124 MW of DSM. This amount included total capital costs and operating expenses incurred by the Company, but excluded expenses for the natural gas Energy $avings Partners ("E$P") low-income weatherization program. The 1999 Agreement identified target savings by customer class and program type.
- As part of the 2003 Least-Cost Resource Plan Settlement Agreement (Decision C05-0049, Docket Nos. 04A-214E, 04A-215E, 04A-216E), the Company committed to obtain 320 MW

and 800 GWh of cost-effective conservation for $196 million (year 2005 dollars) between 2006 and 2013.

House Bill 07-1037, *Concerning Measures to Promote Energy Efficiency, and Making an Appropriation Therefore*, was passed by the Colorado General Assembly and signed into law by Governor Ritter in 2007, and codified in relevant part at §§ 40-1-102(5), (6) and (7), C.R.S., as well as §§ 40-3.2-101 and 104, C.R.S. That bill establishes that:

> … cost-effective natural gas and electricity demand-side management programs will save money for consumers and utilities and protect Colorado's environment. The general assembly further finds, determines, and declares that providing funding mechanisms to encourage Colorado's public utilities to reduce emissions or air pollutants and to increase energy efficiency are matters of statewide concern and that that public interest is served by providing such funding mechanisms. Such efforts will result in an improvement in the quality of life and health of Colorado citizens and an increase in the attractiveness of Colorado as a place to live and conduct business.[1]

Section 40-3.2-104, C.R.S. further charges the Commission to:

> …establish energy savings and peak demand reduction goals to be achieved by an investor-owned electric utility, taking into account the utility's cost-effective DSM potential, the need for electricity resources, the benefits of DSM investments, and other factors as determined by the commission. The energy savings and peak demand reduction goals shall be at least five percent of the utility's retail system peak demand measured in megawatts in the base year and at lease five percent of the utility's retail energy sales measured in megawatt-hours in the base year. The base year shall be 2006. The goals shall be met in 2018, counting savings in 2018 from DSM measures installed starting in 2006. The commission may establish interim goals and may revise the goals as it deems appropriate.[2]

On June 27, 2007, the Commission issued Decision No. C07-0562 opening Docket No. 07I-251G to investigate issues associated with the natural gas DSM requirements contained in § 40-3.2-103, C.R.S. which directs the Commission to implement rules to establish specific natural gas DSM requirements for jurisdictional natural gas utilities. Through an informal workshop and two rounds of comments on proposed rules, the Commission issued Decision No. C08-0248 adopting the Rules regarding Natural Gas Demand-side Management, pursuant to House Bill 07-1037, enacted as §40-3.2-103.

On October 31, 2007, Public Service filed its Application for Authorization to Implement an Enhanced Demand Side Management (DSM) Program and to Revise its Demand Side Management Cost Adjustment Mechanism to Include Current Cost Recovery and Incentives (Application). Public Service requested approval to implement an enhanced DSM program and to revise its demand-side management cost adjustment mechanism (DSMCA) to include current cost recovery and incentives designed to reward Public Service for successfully implementing cost-effective DSM

[1] § 40-3.2-101, C.R.S.
[2] § 40-3.2-104(2).

programs and measures. On June 5, 2008, the Commission issued its Decision No. C08-0560 approving, in part, the Enhanced DSM Plan proposed by the Company and establishing annual electric energy savings goals for Public Service from 2009 through 2020. As part of Decision No. C08-0560, the Commission also endorsed the Company's proposal to file biennial DSM plans and to combine gas and electric DSM plans in one filing, thereby waiving the gas DSM rules' requirement for the Company to file triennial natural gas DSM plans.

In compliance with Decision No. C08-0560, Public Service filed its first combined gas and electric 2009/10 DSM Plan on August 11, 2008. In this Plan, the Company proposed a comprehensive portfolio of electric and natural gas demand-side management programs for 2009 and 2010 as well as annual budgets and annual goals for the natural gas DSM programs. The Commission initiated Docket No. 08A-366EG to consider the 2009/2010 DSM Plan filing and numerous parties intervened. However, prior to hearings, the majority of the Intervenors, the Commission Staff, and the Company entered into a Stipulation and Settlement Agreement. The Settling Parties recommended approval of the Plan subject to certain amendments and changes to specific DSM programs agreed to and described in Appendix A to the Agreement. The Settling Parties further agreed to recommend to the Commission that the Company be afforded the discretion to modify the plan during the course of the plan period and agreed to a process for providing notice of plan changes to interested stakeholders.

The Commission accepted the Settlement Agreement in Decision R08-1243 issued on November 28, 2008. As agreed to in the Settlement Agreement, in compliance with Decision No. R08-1243, on February 20, 2009, the Company filed its 2009/2010 DSM Plan Update, including all changes that had been agreed to in the Settlement as well as corrections to certain errors made in the original plan filing. On May 1, 2009, the Company filed a further amendment to the Plan.

High-Level Achievements

In 2009, Public Service's electric portfolio achieved savings of 59,796 generator kW (106% of goal) and 219,611,146 generator kWh (125% of goal) at a cost of $43,864,419 (87% of goal). The gas portfolio achieved savings of 308,761 Dth (97% of goal) at a cost of $11,587,286 (92% of goal). These achievements have provided electric net benefits of $214.5 million and gas net benefits of $9.6 million. Based on these achievements and net benefits, the Company has determined that it should earn a financial incentive of $8,772,884 for its electric portfolio and $872,754 plus $279,643 for acknowledgement of lost revenues for its gas portfolio. The gas incentive bonus was based on an Energy Factor of 8.5% and a Savings Factor of 1.05772758. The incentive calculations are shown in more detail in the Financial Incentive Calculations section of this document.

Public Service experienced many successes in 2009, including far exceeding goals in its business and residential lighting and residential heating and insulation programs. The Company at the same time experienced some difficulties reaching its overall gas goals, primarily due to the limited number of large customers eligible for the DSM programs, as well as the lack of customer awareness about these new programs. Despite the continuing economic downturn, Public Service improved or maintained cost-effective electric and gas portfolios, achieving TRC ratios of 4.05 and 1.36, respectively, compared to goal TRC ratios of 3.29 and 1.60, respectively. Tables 1a and 1b below compare at a segment level the forecasted budgets, savings goals, and expected cost-effectiveness for

2009 to the actual expenditures, realized savings, and actual cost-effectiveness results. Table 1c provides the values used to calculate the Total Resource Cost Test ratio both without the financial incentive and taking into consideration the financial incentive. The TRC ratio drops slightly for both electric and gas, from 4.07 and 1.36 to 3.66 and 1.30, respectively.

Table 1a: High-Level Electric Goals and Achievements for 2009

2009	Electric Budget	Electric Actual Spend	Generator kW Goal	Net Realized Generator kW	Generator kWh Goal	Net Realized Generator kWh	Goal Modified TRC Ratio	Achieved Modified TRC Ratio
Business Segment	$21,520,457	$18,971,607	25,793	28,897	116,394,660	143,782,198	3 29	4 16
Residential Segment	$21,970,532	$18,422,932	30,360	30,107	54,307,139	64,573,072	4 70	4 71
Low-Income Segment	$1,516,075	$1,633,508	384	791	5,133,511	11,255,876	2 45	4 51
Indirect Segment	$5,531,221	$4,836,372						
2009 TOTAL	**$50,538,284**	**$43,864,419**	**56,537**	**59,796**	**175,835,310**	**219,611,146**	**3.29**	**4.07**

Table 1b: High-Level Natural Gas Goals and Achievements for 2009

2009	Gas Budget	Gas Actual Spend	Goal Dth	Net Realized Dth	Goal Modified TRC Ratio	Achieved Modified TRC Ratio
Business Segment	$1,209,587	$770,152	79,100	25,226	2.69	1.39
Residential Segment	$5,094,697	$5,240,292	138,462	181,750	1.67	1.28
Low-Income Segment	$3,363,503	$2,913,251	100,579	101,785	1.60	2.36
Indirect Segment	$2,960,743	$2,663,591				
2009 TOTAL	**$12,628,529**	**$11,587,286**	**318,141**	**308,761**	**1.60**	**1.36**

Table 1c: Total Resource Cost Test Results With and Without Financial Incentive

	Electric	Gas
Modified TRC Benefits w/ Adder	$328,729,283	$36,658,821
Modified TRC Costs	$79,817,691	$27,828,753
Modified TRC Ratio	4.07	1.36
Modified TRC Benefits w/ Adder	$328,729,283	$36,658,821
Incentive	$8,772,884	$872,754
Acknowledgement of Lost Revenue (ALR)	N/A	$279,643
Modified TRC Costs w/ Incentive & ALR	$87,590,575	$28,181,150
Modified TRC Ratio w/ Incentive & ALR	3.66	1.30

Summary of Program Changes

60/90-Day Notices and May 1, 2009 Amendment

In recognition of the need to afford the Company discretion to make changes to the Plan in order to achieve the greatest level of energy savings, the Stipulation and Settlement Agreement provided for a 60/90-Day Notice process for advising interested stakeholders of changes to the Plan. 60-Day Notices are required for any proposal to add a new DSM program, reduce rebate levels, adopt new or discontinue existing measures, or change technical assumptions or eligibility requirements. 90-Day Notices are required for any program the Company wishes to discontinue. DSM Roundtable participants have 30 days from the time of notice date to provide comments to Public Service on the proposed changes. Public Service will have 30 days thereafter to consider comments. Listed below are the 60-Day Notices that were completed during 2009. Detailed programmatic changes made through 60-Day Notices are described in the "Changes in 2009" section of the pertinent program descriptions. A description of these changes can also be found at: www.xcelenergy.com. There were no 90-Day Notices.

Table 2: 60-Day Notices Submitted in 2009

Program 60-Day Notice	Changes Made	Effective Date
In-Home Smart Device Pilot	New Pilot Program Description	11/2009
Insulation Rebate	Program Description, Technical Modifications	9/2009
Single-Family Weatherization	Program Description, Technical Modifications	9/2009
Evaporative Cooling Rebate	Program Description, Technical Modifications	9/2009
High-Efficiency Air-Conditioning: Tune-up Pilot Test	New Pilot Program Description	9/2009
ENERGY STAR® New Homes	Program Description	9/2009
Cooling Efficiency	Program Description	9/2009
Energy Efficient Showerhead	Program Description, Technical Modifications	7/2009
School Education Kits	Program Description, Technical Modifications	7/2009
Easy Savings Energy Kits	Program Description, Technical Modifications	7/2009
Data Center Efficiency	Program Description	7/2009
Furnace Efficiency	Program Description, Technical Modifications	6/2009
Motor & Drive Efficiency	Program Description, Technical Modifications	6/2009
Compressed Air Efficiency	Program Description, Technical Modifications	6/2009
Home Performance with ENERGY STAR	Program Description	6/2009
Boiler Efficiency	Program Description, Technical Modifications	5/2009
Cooling Efficiency	Program Description, Technical Modifications	5/2009
Boiler Efficiency	Program Description, Technical Modifications	1/2009

Also in accordance with the 2009/10 DSM Plan Stipulation and Settlement Agreement, Appendix A, Public Service committed to provide programmatic updates on its Residential High Efficiency Air Conditioning and ENERGY STAR New Homes Programs through an amendment filed on May 1,

2009. Both of these programs and the updates, as filed in the Amendment, are described in detail in the Status Report section of this document.

Program Achievements and Expenditures

The following tables 3a, 3b, 4a, and 4b provide the goals and budgets approved in the 2009/10 DSM Plan, as well as Public Service's 2009 achievements, actual spending, and cost-effectiveness results by program.

Some of the programs did not pass the modified Total Resource Cost (TRC) test in 2009. While each of the programs are discussed in more detail in the Status Report section of this report, below is a bulleted summary of the primary reasons for the failing of program TRC test ratios (gas and/or electric) as well as a brief description of plans to improve the ratios in 2010.

- **Data Center Efficiency** – Electric. No participants in 2009. This new study-based program, launched in 2009, has long sales cycle for the customer to complete the analysis and implement projects. To build the pipeline for future years, we are increasing efforts to focus on outreach and education with data center customers and trade, and addressing measurement issues.

- **ENERGY STAR New Homes** – Electric and Gas. New housing starts continued their downward swing in 2009 and tight credit made it difficult for builders to obtain construction loans. We have found that the incremental costs and other underlying assumptions provided to us for this program are incorrect and don't accurately represent the homes that are participating in this program, which is the primary cause for this program failing cost effectiveness tests in 2009. We are re-working the technical assumptions and reassessing eligibility requirements for this program and plan to submit a 60-day notice soon that will be effective for calendar year 2010. We believe that this program will be cost effective in 2010 with some necessary changes to these technical assumptions.

- **ENERGY STAR Retailer Incentive** – Electric. New pilot program in 2009. Low participation due to lack of interest from retailers on a new marketing design concept. Public Service will look at new concepts that will provide more saving potential for 2010.

- **Furnace Efficiency** – Gas. Low 2009 natural gas prices, the economic recession, very tight customer operating and capital budgets, and low awareness of the program initially in the marketplace, as we began the program without a pipeline of likely projects. Coming into the second year of the program we are building on the awareness campaign of 2009. Distributor and vendor meetings, in conjunction with print marketing and trade incentives are being considered to improve participation and reach the 2010 goal.

- **High Efficiency Air Conditioning** – Electric. Program's late start significantly impacted the time to attract and train contractors and educate customers about the new program. A stressed economy, cooler than average summer temperatures, and discontinued equipment in the Air Conditioning, Heating and Refrigeration Institute (AHRI) also contributed to the low participation. All planned marketing tactics were implemented, including print, outdoor and

online advertising, trade events and training to ensure the success of this program in future years.

- **Home Performance with ENERGY STAR** – Electric and Gas. The program had a very challenging year because of the high cost to participate, the long time period given to customers to make the improvements, and the overall economic conditions. Increased training of HVAC contractors to proactively market to end customers to receive an energy audit will help increase participation of this program.

- **Insulation Rebate** – Electric. Low customer response rates, and the mix of products rebated were different than what we estimated in the 2009/10 DSM Plan. Far more attic insulations were performed and less wall insulation jobs were done. Going forward, we are working to improve best practices for insulation contractors to improve air sealing tactics.

- **Low-Income, Non-Profit Energy Efficiency** – Gas. New program in 2009. Limited participation due to a long lead-time to identify and complete a project. The engineering approval process to review and approve projects has been refined to increase the responsiveness as project opportunities develop which will work to improve this program in the future.

- **New Construction** – Gas. No participants in 2009 due to recession and continued downturn in the commercial new construction market. Projects expected to finish in 2009 were either pushed out to future years or cancelled entirely. Program also has long lead times (two to four years). Primary actions taken to improve results for future years include working more closely with the consultants selected to administer the program in relation to marketing. In addition, we are meeting with a group of energy modeling firms that have suggestions to improve the program to increase participation. Finally, we are working on an improved version of the EEB Calculator to avoid customer frustration and streamline the participation process.

- **Process Efficiency** – Gas. New program launched in 2009. No participants due to the limited number of large industrial customers who qualify for the program and utilize Public Service retail gas. Industrial customers who qualify for the program have been identified and will be approached in 2010 to see if participation is possible given the strict energy savings targets that potential customers must achieve.

- **Segment Efficiency** – Electric and Gas. Launched in early 2009, the program was temporarily placed on hold mid-year in order to revise the offering to better meet customer needs. As a result, fewer than planned studies were completed and only three small projects were implemented. To increase participation in 2010 and future years, we revised the program by lowering the preliminary study cost to $2,500.

- **Self-Direct Custom Efficiency** – Electric. Program launched in mid-2009, and had a lack of customer awareness and understanding. In addition, this program requires intensive customer side engineering and analysis and the lead time from proposal submittal to project completion is long. Several projects were pre-approved and nearing completion in late 2009. Administrative costs were spent in marketing the program and efforts to fill the 2010 pipeline. We expect this program to have significant participation increases in 2010.

- **Standard Offer** – Electric and Gas. Program launched in mid-2009, and had longer than expected lead times for implementation of conservation measures. The program has a healthy pipeline of projects for 2010 and is expected to perform well for the year. Corrective actions taken to date include a review of the current process and streamlining it where possible. In addition, closer coordination with account managers should keep projects moving through the pipeline faster. Finally, we will be working with the Energy Services Coalition to review recommendations they have made and implement what we can to increase participation within the parameters of a cost-effective program.

- **Water Heating Rebate** – Gas. The combination of added administrative costs, coupled with rebating many more tankless water heaters than expected, resulted in the program not passing the gas cost-benefit analysis test. In 2010 we are considering a consumer awareness campaign to ensure the success of this program.

Table 3a: 2009 Electric Program Goals and Budgets

2009	Electric Participants	Electric Budget	Customer kW	Net Generator kW	Net Generator kWh	Modified TRC Ratio
Business Segment						
Boiler Efficiency						
Compressed Air Efficiency	231	$1,009,956	1,672	1,474	9,181,365	4.03
Cooling Efficiency	234	$2,288,950	4,198	3,035	6,168,583	1.96
Custom Efficiency	43	$2,474,819	1,786	1,372	7,467,223	2.06
Data Center Efficiency	10	$531,350	703	571	5,920,281	4.57
Energy Management Systems	29	$777,692	535	47	4,238,885	2.31
Furnace Efficiency						
Lighting Efficiency	632	$4,418,019	9,208	7,989	31,856,916	3.13
Motor & Drive Efficiency	1,100	$2,582,081	5,056	3,681	20,711,411	4.96
New Construction	46	$3,971,921	5,697	5,506	20,784,026	4.09
Process Efficiency	0	$414,850	100	77	487,371	1.37
Recommissioning	28	$562,633	651	354	3,947,516	2.05
Segment Efficiency	51	$644,452	120	80	528,904	0.86
Self-Direct	5	$348,300	531	478	2,182,451	4.46
Small Business Lighting	50	$789,234	350	316	1,153,540	1.86
Standard Offer	24	$706,200	893	813	1,766,186	2.50
Energy Efficiency Subtotal	**2,483**	**$21,520,457**	**31,501**	**25,793**	**116,394,660**	**3.29**
Business Segment Total	**2,483**	**$21,520,457**	**31,501**	**25,793**	**116,394,660**	**3.29**
Residential Segment						
Energy Efficient Showerhead						
ENERGY STAR New Homes	100	$56,000	136	10	117,030	1.74
ENERGY STAR Retailer Incentive	16,469	$2,658,384	3,171	640	2,455,560	1.17
Evaporative Cooling Rebate	3,800	$1,475,900	6,551	3,803	2,071,569	6.75
Heating System Rebate						
High-Efficiency A/C Program	0	$1,370,000	0	0	0	0.00
Home Lighting & Recycling	250,000	$3,127,951	46,250	3,307	46,237,797	6.39
Home Performance w/ ENERGY STAR	300	$171,949	343	31	374,715	1.94
Insulation Rebate						
Refrigerator Recycling	3,250	$659,703	453	297	2,189,309	2.01
School Education Kits	6,600	$164,211	673	54	815,800	2.99
Water Heating Rebate						
Energy Efficiency Subtotal	**280,519**	**$9,684,098**	**57,578**	**8,142**	**54,261,780**	**4.37**
Saver's Switch	19,500	$12,286,434	58,500	22,218	45,359	4.21
Load Management Subtotal	**19,500**	**$12,286,434**	**58,500**	**22,218**	**45,359**	**4.21**
Residential Segment Total (w/o Low-Income)	**300,019**	**$21,970,532**	**116,078**	**30,360**	**54,307,139**	**4.70**
Low-Income Segment						
Easy Savings Energy Kits	20,000	$591,185	2,040	163	2,472,121	2.39
Multi-Family Weatherization	518	$106,432	249	28	323,820	2.41
Non-Profit Energy Efficiency	322	$68,991	155	17	201,875	2.28
Single-Family Weatherization	1,958	$749,466	1,593	175	2,135,695	2.54
Energy Efficiency Subtotal	**22,798**	**$1,516,075**	**4,037**	**384**	**5,133,511**	**2.45**
Low-Income Segment Total	**22,798**	**$1,516,075**	**4,037**	**384**	**5,133,511**	**2.45**
Indirect Segment						
Education/Market Transformation						
Business Energy Analysis	400	$697,191				
Customer Behavioral Change - Business	1,385	$162,968				
Customer Behavioral Change - Residential	30,000	$882,428				
Residential Home Energy Audit	7,176	$654,672				
Education/Market Transformation Subtotal	**38,961**	**$2,397,259**				
Planning and Research						
DSM Market Research		$1,427,266				
DSM Planning & Administration		$293,496				
DSM Product Development		$673,560				
Measurement & Verification		$739,640				
Planning and Research Subtotal		**$3,133,962**				
Indirect Total	**38,961**	**$5,531,221**				
2009 TOTAL	**364,261**	**$50,538,284**	**151,616**	**56,537**	**175,835,310**	**3.29**

Table 3b: 2009 Electric Program Achievements and Expenditures

2009	Electric Participants	Electric Actual Spend	Customer kW	Net Realized Generator kW	Net Realized Generator kWh	Modified TRC Ratio
Business Segment						
Boiler Efficiency						
Compressed Air Efficiency	51	$543,707	690	470	4,011,600	3.26
Cooling Efficiency	175	$1,715,756	4,319	3,551	6,563,609	3.45
Custom Efficiency	102	$1,949,032	1,806	957	10,176,204	3.46
Data Center Efficiency	0	$153,829	0	0	0	0.00
Energy Management Systems	14	$771,782	529	163	5,552,852	3.15
Furnace Efficiency						
Lighting Efficiency	1,252	$6,087,464	18,501	16,191	74,789,100	4.13
Motor & Drive Efficiency	342	$2,418,222	5,432	3,910	24,896,160	5.17
New Construction	26	$3,169,121	3,152	3,074	11,914,771	3.87
Process Efficiency	4	$459,583	134	115	797,990	1.73
Recommissioning	53	$767,096	690	341	4,722,687	2.48
Segment Efficiency	8	$330,602	58	43	59,197	0.32
Self-Direct	0	$79,218	0	0	0	0.00
Small Business Lighting	15	$318,342	90	82	298,028	1.37
Standard Offer	0	$207,853	0	0	0	0.00
Energy Efficiency Subtotal	**2,042**	**$18,971,607**	**35,401**	**28,897**	**143,782,198**	**4.16**
Business Segment Total	**2,042**	**$18,971,607**	**35,401**	**28,897**	**143,782,198**	**4.16**
Residential Segment						
Energy Efficient Showerhead	13,149	$74,741	23,669	0	2,390,833	24.33
ENERGY STAR New Homes	818	$130,830	99	-76	359,057	0.21
ENERGY STAR Retailer Incentive	3,803	$233,975	88	6	210,707	0.93
Evaporative Cooling Rebate	2,670	$1,089,475	2,695	2,771	1,181,975	4.13
Heating System Rebate						
High-Efficiency A/C Program	119	$418,288	187	112	87,725	0.46
Home Lighting & Recycling	340,442	$3,809,182	62,820	4,492	58,263,630	6.48
Home Performance w/ ENERGY STAR	1	$51,619	1	0	1,367	0.02
Insulation Rebate	0	$7,446	0	0	0	0.00
Refrigerator Recycling	699	$168,745	97	64	470,654	1.69
School Education Kits	30,042	$332,471	8,885	83	1,559,609	4.18
Water Heating Rebate						
Energy Efficiency Subtotal	**391,743**	**$6,316,771**	**98,542**	**7,451**	**64,525,558**	**5.21**
Saver's Switch	20,427	$12,106,161	61,281	22,656	47,515	4.28
Load Management Subtotal	**20,427**	**$12,106,161**	**61,281**	**22,656**	**47,515**	**4.28**
Residential Segment Total (w/o Low-Income)	**412,170**	**$18,422,932**	**159,823**	**30,107**	**64,573,072**	**4.71**
Low-Income Segment						
Easy Savings Energy Kits	26,719	$473,188	30,887	491	8,201,556	10.80
Multi-Family Weatherization	857	$167,932	87	79	180,168	1.16
Non-Profit Energy Efficiency	22,623	$132,591	1,165	95	1,200,617	2.82
Single-Family Weatherization	1,266	$859,797	1,138	125	1,673,535	1.62
Energy Efficiency Subtotal	**51,465**	**$1,633,508**	**33,277**	**791**	**11,255,876**	**4.51**
Low-Income Segment Total	**51,465**	**$1,633,508**	**33,277**	**791**	**11,255,876**	**4.51**
Indirect Segment						
Education/Market Transformation						
Business Energy Analysis	0	$1,111,570				
Customer Behavioral Change - Business	1,400	$144,495				
Customer Behavioral Change - Residential	51,218	$287,788				
Residential Home Energy Audit	23,037	$418,815				
In-Home Smart Device Pilot	51,218	$1,042,700				
Education/Market Transformation Subtotal	**126,873**	**$3,005,368**				
Planning and Research						
DSM Market Research		$706,297				
DSM Planning & Administration		$261,316				
DSM Product Development		$218,930				
Measurement & Verification		$644,461				
Planning and Research Subtotal		**$1,831,004**				
Indirect Total	**126,873**	**$4,836,372**				
2009 TOTAL	**592,550**	**$43,864,419**	**228,501**	**59,796**	**219,611,146**	**4.07**

Table 4a: 2009 Natural Gas Program Goals and Budgets

	2009	Gas Participants	Gas Budget	Net Annual Dth Savings	Annual Dth/$M	Modified TRC Ratio
Business Segment						
	Boiler Efficiency	146	$475,834	31,650	66,514	2.68
	Compressed Air Efficiency					
	Cooling Efficiency					
	Custom Efficiency	14	$198,578	13,492	67,944	2.42
	Data Center Efficiency					
	Energy Management Systems	14	$132,121	6,286	47,579	1.69
	Furnace Efficiency	50	$44,346	4,204	94,803	4.25
	Lighting Efficiency					
	Motor & Drive Efficiency					
	New Construction	9	$184,291	11,747	63,743	1.87
	Process Efficiency	6	$39,300	9,049	230,261	7.22
	Recommissioning	8	$88,363	2,199	24,883	1.38
	Segment Efficiency	5	$25,754	0	0	0.00
	Self-Direct					
	Small Business Lighting					
	Standard Offer	12	$21,000	473	22,503	1.35
	Energy Efficiency Subtotal	**264**	**$1,209,587**	**79,100**	**65,394**	**2.69**
	Business Segment Total	**264**	**$1,209,587**	**79,100**	**65,394**	**2.69**
Residential Segment						
	Energy Efficient Showerhead	20,000	$199,514	14,280	71,576	5.99
	ENERGY STAR New Homes	2,200	$3,002,604	34,658	11,543	1.25
	ENERGY STAR Retailer Incentive					
	Evaporative Cooling Rebate					
	Heating System Rebate	4,500	$789,360	35,868	45,440	1.85
	Home Lighting & Recycling					
	Home Performance w/ ENERGY STAR	300	$328,250	9,617	29,299	1.23
	Insulation Rebate	1,500	$529,900	28,210	53,237	1.72
	Refrigerator Recycling					
	School Education Kits	6,600	$163,273	14,315	87,674	4.16
	Water Heating Rebate	1,250	$81,796	1,513	18,502	1.16
	Energy Efficiency Subtotal	**36,350**	**$5,094,697**	**138,462**	**27,178**	**1.67**
	Saver's Switch					
	Load Management Subtotal					
	Residential Segment Total (w/o Low-Income)	**36,350**	**$5,094,697**	**138,462**	**27,178**	**1.67**
Low-Income Segment						
	Easy Savings Energy Kits	20,000	$591,599	36,666	61,978	3.65
	Multi-Family Weatherization	518	$292,290	6,298	21,547	1.42
	Non-Profit Energy Efficiency	322	$393,258	4,064	10,333	1.23
	Single-Family Weatherization	2,946	$2,086,355	53,551	25,667	1.36
	Energy Efficiency Subtotal	**23,786**	**$3,363,503**	**100,579**	**29,903**	**1.60**
	Low-Income Segment Total	**23,786**	**$3,363,503**	**100,579**	**29,903**	**1.60**
Indirect Segment						
	Education/Market Transformation					
	Business Energy Analysis	100	$155,262			
	Customer Behavioral Change - Business	593	$70,644			
	Customer Behavioral Change - Residential	30,000	$920,287			
	Residential Home Energy Audit	7,774	$710,484			
	Education/Market Transformation Subtotal	**38,467**	**$1,856,677**			
	Planning and Research					
	DSM Market Research		$587,266			
	DSM Planning & Administration		$178,000			
	DSM Product Development		$204,440			
	Measurement & Verification		$134,360			
	Planning and Research Subtotal		**$1,104,066**			
	Indirect Total	**38,467**	**$2,960,743**			
	2009 TOTAL	**98,867**	**$12,628,529**	**318,141**	**25,192**	**1.60**

Table 4b: 2009 Natural Gas Program Achievements and Expenditures

2009	Gas Participants	Gas Budget	Net Realized Annual Dth Savings	Annual Dth/$M	Modified TRC Ratio
Business Segment					
Boiler Efficiency	50	$365,361	13,019	35,634	1.54
Compressed Air Efficiency					
Cooling Efficiency					
Custom Efficiency	7	$162,181	6,838	42,162	1.67
Data Center Efficiency					
Energy Management Systems	1	$26,270	1,866	71,018	1.00
Furnace Efficiency	33	$36,406	651	17,893	0.53
Lighting Efficiency					
Motor & Drive Efficiency					
New Construction	0	$56,645	0	0	0.00
Process Efficiency	0	$14,581	0	0	0.00
Recommissioning	8	$52,614	2,852	54,206	1.71
Segment Efficiency	0	$41,080	0	0	0.40
Self-Direct					
Small Business Lighting					
Standard Offer	0	$15,014	0	0	0.22
Energy Efficiency Subtotal	**99**	**$770,152**	**25,226**	**32,755**	**1.39**
Business Segment Total	**99**	**$770,152**	**25,226**	**32,755**	**1.39**
Residential Segment					
Energy Efficient Showerhead	74,513	$464,173	65,400	140,895	11.84
ENERGY STAR New Homes	1,395	$2,246,164	19,337	8,609	0.33
ENERGY STAR Retailer Incentive					
Evaporative Cooling Rebate					
Heating System Rebate	4,256	$897,475	35,183	39,202	1.78
Home Lighting & Recycling					
Home Performance w/ ENERGY STAR	1	$70,993	19	269	0.03
Insulation Rebate	3,487	$1,050,186	45,558	43,381	1.14
Refrigerator Recycling					
School Education Kits	15,021	$330,491	12,081	36,555	1.91
Water Heating Rebate	1,667	$180,812	4,172	23,075	0.92
Energy Efficiency Subtotal	**100,340**	**$5,240,292**	**181,750**	**34,683**	**1.28**
Saver's Switch					
Load Management Subtotal					
Residential Segment Total (w/o Low-Income)	**100,340**	**$5,240,292**	**181,750**	**34,683**	**1.28**
Low-Income Segment					
Easy Savings Energy Kits	36,094	$484,459	50,217	103,656	5.66
Multi-Family Weatherization	5,255	$408,841	25,668	62,783	4.75
Non-Profit Energy Efficiency	10	$176,549	945	5,353	0.68
Single-Family Weatherization	2,274	$1,843,403	24,954	13,537	1.36
Energy Efficiency Subtotal	**43,633**	**$2,913,251**	**101,785**	**34,939**	**2.36**
Low-Income Segment Total	**43,633**	**$2,913,251**	**101,785**	**34,939**	**2.36**
Indirect Segment					
Education/Market Transformation					
Business Energy Analysis	0	$348,328			
Customer Behavioral Change - Business	937	$136,275			
Customer Behavioral Change - Residential	51,219	$994,908			
Residential Home Energy Audit	24,418	$498,318			
Education/Market Transformation Subtotal	**76,574**	**$1,977,830**			
Planning and Research					
DSM Market Research		$345,102			
DSM Planning & Administration		$99,610			
DSM Product Development		$133,359			
Evaluation		$97,879			
Measurement & Verification		$9,812			
Planning and Research Subtotal		**$685,762**			
Indirect Total	**76,574**	**$2,663,591**			
2009 TOTAL	**220,646**	**$11,587,286**	**308,761**	**26,647**	**1.36**

The following Table 4 provides the CO_2 and SOx emissions avoided for 2009 and cumulatively over the lifetime for each program.

Table 5: 2009 Emissions Avoided

	2009	Annual				Cumulative over Lifetime			
		Tons CO2			lbs SOx	Tons CO2			lbs SOx
		Electric	Gas	TOTAL	Electric	Electric	Gas	TOTAL	Electric
Business Segment									
	Boiler Efficiency		762	762			13,865	13,865	
	Compressed Air Efficiency	2,846		2,846	4,493	26,274		26,274	19,422
	Cooling Efficiency	4,657		4,657	7,351	84,085		84,085	54,057
	Custom Efficiency	7,220	400	7,620	11,397	112,345	7,200	119,546	73,391
	Data Center Efficiency	0		0	0	0		0	0
	Energy Management Systems	3,940	109	4,049	6,219	36,447	764	37,211	26,597
	Furnace Efficiency		38	38			572	572	
	Lighting Efficiency	53,063		53,063	83,764	831,449		831,449	544,251
	Motor & Drive Efficiency	17,664		17,664	27,884	318,941		318,941	205,041
	New Construction	8,454	0	8,454	13,345	152,638	0	152,638	98,128
	Process Efficiency	566	0	566	894	9,766	0	9,766	6,348
	Recommissioning	3,351	167	3,518	5,289	21,951	1,168	23,119	18,021
	Segment Efficiency	42	0	42	66	719	0	719	467
	Self-Direct	0		0	0	0		0	0
	Small Business Lighting	211		211	334	3,818		3,818	2,455
	Standard Offer	0	0	0	0	0	0	0	0
	Energy Efficiency Subtotal	**102,013**	**1,476**	**103,489**	**161,036**	**1,598,435**	**23,569**	**1,622,004**	**1,048,178**
	Business Segment Total	**102,013**	**1,476**	**103,489**	**161,036**	**1,598,435**	**23,569**	**1,622,004**	**1,048,178**
Residential Segment									
	Energy Efficient Showerhead	1,696	3,826	5,522	2,678	9,564	38,259	47,823	8,277
	ENERGY STAR New Homes	255	470	724	402	3,235	2,818	6,053	2,213
	ENERGY STAR Retailer Incentive	149		149	236	857		857	736
	Evaporative Cooling Rebate	839		839	1,324	7,758		7,758	5,661
	Heating System Rebate		2,058	2,058			37,047	37,047	
	Home Lighting & Recycling	41,338		41,338	65,255	270,810		270,810	222,325
	Home Performance w/ ENERGY STAR	1	1,483	1,484	2	8	29,665	29,674	6
	Insulation Rebate		2,665	2,665		0	51,204	51,204	0
	Refrigerator Recycling	334		334	527	2,188		2,188	1,796
	School Education Kits	1,107	707	1,813	1,747	6,174	4,003	10,177	5,363
	Water Heating Rebate		244	244			4,564	4,564	
	Energy Efficiency Subtotal	**45,719**	**11,453**	**57,172**	**72,170**	**300,594**	**167,560**	**468,154**	**246,378**
	Saver's Switch	34		34	53	468		468	316
	Load Management Subtotal								
	Residential Segment Total (w/o Low-Income)	**45,752**	**11,453**	**57,205**	**72,224**	**301,062**	**167,560**	**468,622**	**246,694**
Low-Income Segment									
	Easy Savings Energy Kits	5,819	2,938	8,757	9,186	32,474	15,982	48,456	28,209
	Multi-Family Weatherization	128	1,502	1,629	202	826	26,777	27,602	681
	Non-Profit Energy Efficiency	852	55	907	1,345	5,394	920	6,315	4,478
	Single-Family Weatherization	1,187	1,460	2,647	1,874	10,552	28,581	39,133	7,888
	Energy Efficiency Subtotal	**7,986**	**5,954**	**13,940**	**12,607**	**49,246**	**72,259**	**121,505**	**41,256**
	Low-Income Segment Total	**7,986**	**5,954**	**13,940**	**12,607**	**49,246**	**72,259**	**121,505**	**41,256**
	2009 TOTAL	**155,752**	**18,883**	**174,635**	**245,866**	**1,948,743**	**263,388**	**2,212,131**	**1,336,127**

* - Emissions assumptions: To calculate the avoided CO_2 and SO_x emissions resulting from its 2009 electric DSM programs, Public Service used the same emissions intensity (lbs/kWh) used to determine the avoided emissions values in the 2009/10 DSM Plan. For natural gas, Public Service assumed 117 lbs of CO_2 avoided per Dth saved. Emissions reductions of SO_x for natural gas are negligible and not reported here.

Program Costs by Budget Category

Public Service uses the following five budget categories to track and report its annual expenditures for each DSM program:

- **Program Planning and Design** – Costs to develop programs.
- **Administration and Program Delivery** – This category includes the costs for:
    - Project Delivery – to deliver the program to the customer including Program Manager labor and costs;
    - Utility Administration – to administer the program internally, including Rebate Processing and Planning and Administration; and
    - Other Project Administration – other costs not covered in any other cost category.
- **Advertising, Promotion, and Customer Education** – Costs to raise awareness, promote, and inform customers of program offerings.
- **Incentive (Rebates)** – The total dollars paid in rebates to program participants.
- **Equipment and Installation** – Costs for equipment purchase and installation.
- **Measurement and Verification** – Costs to perform measurement and verification activities.

Please note that in certain programs, the Measurement and Verification spending may appear lower than budgeted for one or more of the following reasons:

- Vendor billing did not separate-out M&V work as opposed to other consulting work; thus some charges may be in the category of Administration and Program Delivery.
- Little or no participation in the program.
- M&V work charged to the Company in 2010.
- There weren't as many as anticipated metering projects.

Table 6a: Electric Program Costs by Budget Category – Budget

	Budget						
Program	Prog. Planning & Design	Admin. & Prog. Delivery	Advert. / Promo. / Customer Ed.	Incentives (Rebates)	Equip. & Install.	M&V	Total Budget
Business Segment							
Compressed Air Efficiency	$50,165	$351,481	$54,197	$518,253	$0	$35,860	$1,009,956
Cooling Efficiency	$81,140	$151,076	$103,033	$1,872,941	$0	$80,760	$2,288,950
Custom Efficiency	$317,647	$668,122	$122,627	$1,286,588	$0	$79,835	$2,474,819
Data Center Efficiency	$81,766	$22,306	$68,300	$333,676	$0	$25,302	$531,350
Energy Management Systems	$45,020	$324,314	$52,410	$325,698	$0	$30,250	$777,692
Lighting Efficiency	$4,704	$635,331	$170,383	$3,402,161	$0	$205,440	$4,418,019
Motor & Drive Efficiency	$9,800	$273,207	$88,000	$2,084,986	$0	$126,088	$2,582,081
New Construction	$4,981	$1,639,480	$172,864	$1,579,400	$0	$575,196	$3,971,921
Process Efficiency	$0	$333,858	$4,000	$56,250	$0	$20,743	$414,850
Recommissioning	$0	$125,446	$82,422	$327,973	$0	$26,792	$562,633
Segment Efficiency	$81,393	$270,773	$75,842	$214,516	$0	$1,928	$644,452
Self-Direct	$7,500	$49,000	$11,800	$280,000	$0	$0	$348,300
Small Business Lighting	$72,609	$408,914	$50,025	$243,012	$0	$14,674	$789,234
Standard Offer	$20,000	$133,600	$19,000	$533,600	$0	$0	$706,200
Total Business	**$776,725**	**$5,386,908**	**$1,074,903**	**$13,059,054**	**$0**	**$1,222,868**	**$21,520,457**
Residential Segment							
Energy Efficient Showerheads	$0	$0	$0	$0	$0	$0	$0
ENERGY STAR New Homes	$2,250	$11,500	$16,250	$11,000	$0	$15,000	$56,000
ENERGY STAR Retailer Incentive	$242,382	$103,710	$1,280,994	$881,298	$0	$150,000	$2,658,384
Evaporative Cooling Rebate	$29,368	$37,053	$145,483	$1,218,000	$0	$45,996	$1,475,900
High Efficiency Air Conditioning	$242,246	$232,828	$199,574	$354,373	$0	$340,979	$1,370,000
Home Lighting & Recycling	$57,091	$564,177	$1,006,683	$1,300,000	$0	$200,000	$3,127,951
Home Performance w/ ENERGY STAR	$22,101	$48,590	$20,830	$64,785	$0	$15,643	$171,949
Insulation Rebate	$0	$0	$0	$0	$0	$0	$0
Refrigerator Recycling	$15,824	$415,737	$91,800	$113,750	$0	$22,592	$659,703
School Education Kits	$3,154	$1,649	$0	$153,087	$0	$6,321	$164,211
Total Residential	**$614,416**	**$1,415,244**	**$2,761,614**	**$4,096,293**	**$0**	**$796,531**	**$9,684,098**
Load Management							
Saver's Switch	$54,450	$820,821	$1,119,260	$5,311,050	$4,806,363	$174,490	$12,286,434
Total Load Management	**$54,450**	**$820,821**	**$1,119,260**	**$5,311,050**	**$4,806,363**	**$174,490**	**$12,286,434**
Low-Income Segment							
Easy Savings Energy Kits	$5,067	$152,090	$0	$411,300	$0	$22,728	$591,185
Multi-Family Weatherization	$5,067	$9,529	$0	$90,324	$0	$1,512	$106,432
Non-Profit Energy Efficiency	$5,067	$6,433	$0	$56,591	$0	$900	$68,991
Single-Family Weatherization	$18,579	$48,446	$0	$666,421	$0	$16,020	$749,466
Total Low-Income	**$33,780**	**$216,498**	**$0**	**$1,224,636**	**$0**	**$41,160**	**$1,516,074**
Indirect Segment							
Education/Market Transformation							
Business Energy Analysis	$28,353	$622,338	$46,500	$0	$0	$0	$697,191
Customer Behavioral Change - Business	$33,074	$10,294	$119,600	$0	$0	$0	$162,968
Customer Behavioral Change - Residential	$93,053	$15,000	$774,375	$0	$0	$0	$882,428
Residential Home Energy Audit	$12,450	$515,472	$115,800	$0	$0	$10,950	$654,672
In-Home Smart Device Pilot						$0	
Total Education/Market Transformation	**$166,930**	**$1,163,104**	**$1,056,275**	**$0**	**$0**	**$10,950**	**$2,397,259**
Planning and Research							
DSM Market Research	$0	$1,427,266	$0	$0	$0	$0	$1,427,266
DSM Planning & Administration	$0	$293,496	$0	$0	$0	$0	$293,496
DSM Product Development	$220,560	$433,000	$0	$0	$20,000	$0	$673,560
Evaluation, Measurement & Verification	$0	$120,140	$0	$0	$0	$619,500	$739,640
Total Planning and Research	**$220,560**	**$2,273,902**	**$0**	**$0**	**$20,000**	**$619,500**	**$3,133,962**
Total Indirect	**$387,490**	**$3,437,006**	**$1,056,275**	**$0**	**$20,000**	**$630,450**	**$5,531,221**
TOTAL ELECTRIC PORTFOLIO	**$1,866,861**	**$11,276,477**	**$6,012,052**	**$23,691,033**	**$4,826,363**	**$2,865,499**	**$50,538,284**
% OF TOTAL	**4%**	**22%**	**12%**	**47%**	**10%**	**6%**	**100%**

Table 6b: Electric Program Costs by Budget Category – Actuals

	Actuals						
Program	Prog. Planning & Design	Admin. & Prog. Delivery	Advert. / Promo. / Customer Ed.	Incentives (Rebates)	Equip. & Install.	M&V	Total Cost
Business Segment							
Compressed Air Efficiency	$25,087	$149,839	$61,070	$283,280	$0	$24,431	$543,707
Cooling Efficiency	$41,928	$334,152	$269,872	$1,006,239	$0	$63,565	$1,715,756
Custom Efficiency	$130,659	$646,619	$267,411	$716,456	$0	$187,887	$1,949,032
Data Center Efficiency	$9,527	$97,214	$47,087	$0	$0	$0	$153,829
Energy Management Systems	$23,613	$148,172	$147,182	$379,563	$0	$73,252	$771,782
Lighting Efficiency	$69,922	$846,063	$608,157	$4,465,662	$0	$97,661	$6,087,464
Motor & Drive Efficiency	$34,644	$394,679	$191,253	$1,771,896	$0	$25,750	$2,418,222
New Construction	$5,943	$2,170,838	$225,127	$714,240	$0	$52,972	$3,169,121
Process Efficiency	$6,924	$379,239	$13,777	$50,118	$0	$9,525	$459,583
Recommissioning	$35,091	$297,240	$82,727	$352,038	$0	$0	$767,096
Segment Efficiency	$4,166	$209,624	$17,474	$96,479	$0	$2,860	$330,602
Self-Direct	$11,815	$66,506	$897	$0	$0	$0	$79,218
Small Business Lighting	$0	$254,915	$40,701	$22,725	$0	$0	$318,342
Standard Offer	$27,702	$61,132	$107,019	$12,000	$0	$0	$207,853
Total Business	**$427,022**	**$6,056,233**	**$2,079,754**	**$9,870,696**	**$0**	**$537,902**	**$18,971,607**
Residential Segment							
Energy Efficient Showerheads	$0	$0	$0	$74,741	$0	$0	$74,741
ENERGY STAR New Homes	$0	$50,518	$5,122	$61,544	$0	$13,646	$130,830
ENERGY STAR Retailer Incentive	$0	$41,830	$43,475	$142,020	$0	$6,650	$233,975
Evaporative Cooling Rebate	$557	$116,807	$152,926	$785,195	$0	$33,990	$1,089,475
High Efficiency Air Conditioning	$384	$179,549	$176,156	$62,200	$0	$0	$418,288
Home Lighting & Recycling	$1,193	$1,081,437	$2,058,429	$668,123	$0	$0	$3,809,182
Home Performance w/ ENERGY STAR	$846	$33,727	$11,976	$40	$0	$5,029	$51,619
Insulation Rebate	$0	$646	$0	$0	$0	$6,800	$7,446
Refrigerator Recycling	$0	$100,609	$43,670	$24,465	$0	$0	$168,745
School Education Kits	$205	$196,824 76	$27	$135,414	$0	$0	$332,471
Total Residential	**$3,185**	**$1,801,948**	**$2,491,781**	**$1,953,742**	**$0**	**$66,115**	**$6,316,771**
Load Management							
Saver's Switch	$11,539	$1,189,493	$1,366,814	$4,457,423	$4,982,976	$97,917	$12,106,161
Total Load Management	**$11,539**	**$1,189,493**	**$1,366,814**	**$4,457,423**	**$4,982,976**	**$97,917**	**$12,106,161**
Low-Income Segment							
Easy Savings Energy Kits	$0	$113,092 84	$54,028	$305,081 38	$0	$986	$473,188
Multi-Family Weatherization	$5,485	$36,664 05	$162	$125,621 71	$0	$0	$167,932
Non-Profit Energy Efficiency	$1,971	$30,366	$254	$100,000	$0	$0	$132,591
Single-Family Weatherization	$0	$519,263 37	$79,824	$253,284 20	$0	$7,426	$859,797
Total Low-Income	**$7,456**	**$699,386**	**$134,267**	**$783,987**	**$0**	**$8,412**	**$1,633,508**
Indirect Segment							
Education/Market Transformation							
Business Energy Analysis	$0	$1,096,941	$14,629	$0	$0	$0	$1,111,570
Customer Behavioral Change - Business	$0	$16,633	$127,862	$0	$0	$0	$144,495
Customer Behavioral Change - Residenti	$0	$150,601	$892,100	$0	$0	$0	$1,042,700
Residential Home Energy Audit	$0	$347,637	$71,178	$0	$0	$0	$418,815
In-Home Smart Device Pilot	$0	$287,738	$50	$0	$0	$0	$287,788
Total Education/Market Transformati	**$0**	**$1,899,549**	**$1,105,819**	**$0**	**$0**	**$0**	**$3,005,368**
Planning and Research							
DSM Market Research	$0	$704,869	$79	$0	$0	$1,349	$706,297
DSM Planning & Administration	$0	$261,316	$0	$0	$0	$0	$261,316
DSM Product Development	$107,356	$111,575	$0	$0	$0	$0	$218,930
Evaluation, Measurement & Verification	$0	$0	$0	$0	$0	$644,461	$644,461
Total Planning and Research	**$107,356**	**$1,077,759**	**$79**	**$0**	**$0**	**$645,810**	**$1,831,004**
Total Indirect	**$107,356**	**$2,977,308**	**$1,105,899**	**$0**	**$0**	**$645,810**	**$4,836,372**
TOTAL ELECTRIC PORTFOLIO	**$556,557**	**$12,724,368**	**$7,178,516**	**$17,065,847**	**$4,982,976**	**$1,356,156**	**$43,864,419**
% OF TOTAL	**1%**	**29%**	**16%**	**39%**	**11%**	**3%**	**100%**

Table 7a: Gas Program Costs by Budget Category – Budget

	Budget						
Program	**Prog. Planning & Design**	**Admin. & Prog. Delivery**	**Advert. / Promo. / Customer Ed.**	**Incentives (Rebates)**	**Equip. & Install.**	**M&V**	**Total Budget**
Business Segment							
Boiler Efficiency	$54,565	$128,064	$46,242	$223,463	$0	$23,500	$475,834
Custom Efficiency	$1,457	$128,018	$17,746	$47,600	$0	$3,578	$198,578
Energy Management Systems	$1,329	$76,741	$7,225	$43,400	$0	$3,426	$132,121
Furnace Efficiency	$10,257	$15,859	$4,750	$8,480	$0	$5,000	$44,346
New Construction	$500	$62,961	$38,260	$51,577	$0	$30,993	$184,291
Process Efficiency	$0	$15,435	$600	$21,300	$0	$1,965	$39,300
Recommissioning	$0	$29,650	$21,320	$33,185	$0	$4,208	$88,363
Segment Efficiency	$3,040	$6,199	$15,900	$615	$0	$0	$25,754
Standard Offer	$1,000	$11,000	$0	$9,000	$0	$0	$21,000
Total Business	**$72,148**	**$473,927**	**$152,043**	**$438,620**	**$0**	**$72,670**	**$1,209,587**
Residential Segment							
Energy Efficient Showerheads	$21,256	$35,200	$35,000	$100,000	$0	$8,058	$199,514
ENERGY STAR New Homes	$45,000	$534,821	$222,783	$1,100,000	$0	$1,100,000	$3,002,604
Heating System Rebate	$51,393	$58,807	$153,800	$495,000	$0	$30,360	$789,360
Home Performance w/ ENERGY STAR	$33,047	$103,303	$33,955	$129,715	$0	$28,230	$328,250
Insulation Rebate	$22,520	$16,900	$25,000	$450,000	$0	$15,480	$529,900
School Education Kits	$2,110	$1,800	$0	$153,087	$0	$6,276	$163,273
Water Heating Rebate	$11,850	$1,300	$8,500	$57,000	$0	$3,146	$81,796
Total Residential	**$187,176**	**$752,131**	**$479,038**	**$2,484,802**	**$0**	**$1,191,550**	**$5,094,697**
Low-Income Segment							
Easy Savings Energy Kits	$3,813	$153,464	$270	$411,300	$0	$22,752	$591,599
Multi-Family Weatherization	$3,812	$24,604	$270	$258,636	$0	$4,968	$292,290
Non-Profit Energy Efficiency	$3,816	$6,360	$270	$367,692	$0	$15,120	$393,258
Single-Family Weatherization	$13,979	$32,635	$30,990	$1,928,507	$0	$80,244	$2,086,355
Total Low-Income	**$25,420**	**$217,063**	**$31,800**	**$2,966,135**	**$0**	**$123,084**	**$3,363,502**
Indirect Segment							
Education/Market Transformation							
Business Energy Analysis	$9,048	$143,214	$3,000	$0	$0	$0	$155,262
Customer Behavioral Change - Business	$12,392	$5,294	$52,958	$0	$0	$0	$70,644
Customer Behavioral Change - Residential	$127,270	$15,000	$778,017	$0	$0	$0	$920,287
Residential Home Energy Audit	$18,758	$555,201	$125,075	$0	$0	$11,450	$710,484
Total Education/Market Transformation	**$167,468**	**$718,709**	**$959,050**	**$0**	**$0**	**$11,450**	**$1,856,677**
Planning and Research							
DSM Market Research	$0	$587,266	$0	$0	$0	$0	$587,266
DSM Planning & Administration	$0	$178,000	$0	$0	$0	$0	$178,000
DSM Product Development	$77,440	$117,000	$0	$0	$10,000	$0	$204,440
Evaluation, Measurement & Verification	$0	$18,860	$0	$0	$0	$115,500	$134,360
Total Planning and Research	**$77,440**	**$901,126**	**$0**	**$0**	**$10,000**	**$115,500**	**$1,104,066**
Total Indirect	**$244,908**	**$1,619,835**	**$959,050**	**$0**	**$10,000**	**$126,950**	**$2,960,743**
TOTAL GAS PORTFOLIO	**$529,652**	**$3,062,956**	**$1,621,931**	**$5,889,557**	**$10,000**	**$1,514,254**	**$12,628,529**
% OF TOTAL	4%	24%	13%	47%	0%	12%	100%

Table 7b: Gas Program Costs by Budget Category – Actuals

	Actuals						
Program	Prog. Planning & Design	Admin. & Prog. Delivery	Advert. / Promo. / Customer Ed.	Incentives (Rebates)	Equip. & Install.	M&V	Total Cost
Business Segment							
Boiler Efficiency	$4,853	$133,475	$32,158	$185,983	$0	$8,893	$365,361
Custom Efficiency	$0	$85,501	$5,940	$54,988	$0	$15,753	$162,181
Energy Management Systems	$4,187	$17,394	$4,625	$0	$0	$65	$26,270
Furnace Efficiency	$136	$22,720	$1,120	$6,680	$0	$5,750	$36,406
New Construction	$4,921	$40,964	$10,760	$0	$0	$0	$56,645
Process Efficiency	$0	$14,227	$354	$0	$0	$0	$14,581
Recommissioning	$5,628	$29,006	$6,656	$11,324	$0	$0	$52,614
Segment Efficiency	$158	$21,865	$2,783	$16,275	$0	$0	$41,080
Standard Offer	$1,902	$8,325	$1,523	$3,264	$0	$0	$15,014
Total Business	**$21,784**	**$373,475**	**$65,919**	**$278,513**	**$0**	**$30,460**	**$770,152**
Residential Segment							
Energy Efficient Showerheads	$0	$98,073	$92,084	$274,015	$0	$0	$464,173
ENERGY STAR New Homes	$201	$809,511	$201,372	$566,426	$0	$668,654	$2,246,164
Heating System Rebate	$890	$156,700	$147,349	$559,060	$0	$33,475	$897,475
Home Performance w/ ENERGY STAR	$307	$40,695	$19,260	$520	$0	$10,211	$70,993
Insulation Rebate	$690	$32,370	$14,547	$997,979	$0	$4,600	$1,050,186
School Education Kits	$0	$99,365 94	$27	$231,098	$0	$0	$330,491
Water Heating Rebate	$0	$42,034	$8,923	$123,160	$0	$6,695	$180,812
Total Residential	**$2,088**	**$1,278,750**	**$483,562**	**$2,752,258**	**$0**	**$723,635**	**$5,240,292**
Low-Income Segment							
Easy Savings Energy Kits	$0	$251,351	$56,627	$175,495	$0	$986	$484,459
Multi-Family Weatherization	$5,207	$158,664	$39	$244,931	$0	$0	$408,841
Non-Profit Energy Efficiency	$3,911	$106,510	$180	$65,947	$0	$0	$176,549
Single-Family Weatherization	$2,611	$191,661	$80,419	$1,552,585	$0	$16,126	$1,843,403
Total Low-Income	**$11,729**	**$708,186**	**$137,265**	**$2,038,958**	**$0**	**$17,112**	**$2,913,251**
Indirect Segment							
Education/Market Transformation							
Business Energy Analysis	$7,350	$336,157	$4,821	$0	$0	$0	$348,328
Customer Behavioral Change - Business	$0	$14,771	$121,505	$0	$0	$0	$136,275
Customer Behavioral Change - Residential	$0	$135,592	$859,316	$0	$0	$0	$994,908
Residential Home Energy Audit	$0	$417,633	$80,685	$0	$0	$0	$498,318
Total Education/Market Transformation	**$7,350**	**$904,153**	**$1,066,327**	**$0**	**$0**	**$0**	**$1,977,830**
Planning and Research							
DSM Market Research	$0	$345,082	$20	$0	$0	$0	$345,102
DSM Planning & Administration	$0	$99,610	$0	$0	$0	$0	$99,610
DSM Product Development	$61,242	$68,381	$3,736	$0	$0	$0	$133,359
Evaluation, Measurement & Verification	$0	$0	$0	$0	$0	$107,691	$107,691
Total Planning and Research	**$61,242**	**$513,073**	**$3,756**	**$0**	**$0**	**$107,691**	**$685,762**
Total Indirect	**$68,592**	**$1,417,226**	**$1,070,082**	**$0**	**$0**	**$107,691**	**$2,663,591**
TOTAL GAS PORTFOLIO	**$104,193**	**$3,777,638**	**$1,756,828**	**$5,069,730**	**$0**	**$878,897**	**$11,587,286.42**
% OF TOTAL	**1%**	**33%**	**15%**	**44%**	**0%**	**8%**	**100%**

Compliance

Table 8: Status Report Compliance and Reporting Requirements

Item #	Compliance Point	Reference[3]	Report Reference / Comment
ELECTRIC			
1	PSCo shall work with Staff prior to filing its first advice letter in accordance resulting from this docket (the DSMCA filing), in order to develop templates for the supporting documentation and data that will accompany these filings. This template shall be filed in this docket as a compliance item. Parties shall develop the format and content of the annual DSM report filings.	E - p.53, paragraph 172	PSCo. met Commission Staff on January 27, 2010 to discuss reporting requirements.
2	The annual DSM report will be filed with the Commission on April 1 of each year, starting in 2010.	E - p.53, paragraph 173	Report filed April 1, 2010.
3	We accept the modification proposed by PSCo that the avoided costs underlying the net economic benefits not be updated between the first and second installment calculation. Also, we find that the avoided cost data shall be updated with each annual report so that the degree of change can be assessed and this issue incorporated into the overall review of DSM incentives in 2010. We will thereby consider whether avoided costs should be updated more frequently.	E - p.18 (ARRR), paragraph 58	Avoided Cost Assumptions, Pages 95 – 100
4	Shall include the results achieved during the previous plan year in total and by program, including achieved energy and demand savings, avoided annual and cumulative CO_2 and SO_x emissions in metric tons, actual expenditures, expenditures expressed in terms of $/kWh over the lifetime of the measures installed, and net economic benefits achieved.	S - p.16	See Tables 3a - 5. $/kWh over lifetime and net economic benefits achieved by program in Cost-Effectiveness Section.
5	Use Appendix B for: o Developing forecast of annual DSMCA expenditures for 2009 and 2010; o Establishing overall annual energy savings targets for 2009 and 2010, and o Determining savings achieved in 2009 and 2010 to calculate the electric DSM financial incentive. o Determining cost-effectiveness and calculating net economic benefits (with avoided costs from App E) using the incremental customer O&M savings (for prescriptive measures only), customer O&M costs (for prescriptive measures only), incremental customer capital costs (for prescriptive measures only), net-to-gross ratios, and deemed savings formulas and other technical assumptions.	S - p.13	2009/2010 Plan, Docket No. 08A-366EG
6	Use deemed savings from the technical assumptions to calculate the prescriptive program savings.	S - p.14	2009/2010 Plan, Docket No. 08A-366EG

[3] **Reference Key:**
E = Enhanced Plan Order, Docket No. 07A-420E, Decision No. C08-0560
S = DSM Stipulation & Settlement Agreement, Docket No. 08A-366EG, Decision No. R08-1243
G = Gas Rules, 4 CCR 723-4

Table 8: Status Report Compliance and Reporting Requirements (cont'd)

Item #	Compliance Point	Reference[4]	Report Reference / Comment
7	Use the methodology described in the Direct Testimony of Company witness Jeremy Petersen (JP) to determine DSM portfolio and program cost-effectiveness.	S - p.14	2009/2010 Plan, Docket No. 08A-366EG
8	Use this same JP methodology for calculating the net economic benefit associated with DSM measures actually installed.	S - p.14	2009/2010 Plan, Docket No. 08A-366EG
9	All Participant O&M data should be treated as proprietary in the absence of a written agreement signed by the Participant authorizing disclosure.	S - p.8	2009/2010 Plan, Docket No. 08A-366EG
10	Do not include Participant O&M data in incentive calculations unless there is authorization to disclose such data.	S - p.8	No participant O&M data was included in the financial incentive calculations for 2009.
11	PSCo may only disclose the results, by cost category, of calculations made using the privileged values, but not values themselves, by making such results available for inspection by both the Staff of CO PUC and OCC at the Company's Colorado offices, pursuant to the following procedures: o PSCo will provide the customer 10 business-days notice of the place and time of the inspection and provide the opportunity for a customer representative to be present during the inspection. o PSCo shall maintain a log of persons, dates, times and documents reviewed. o Participant O&M data shall not be disclosed to any other party or by any other means, except after receipt of written authorization from the Participant	S - p.9	Participant O&M data has been neither requested nor disclosed to any external party.
12	Verify results of Self-Directed customers' energy savings calculations and evaluation, M&V results.	S - p.7	There were no Self-Directed projects completed in 2009.
13	Approve projects for which the customer meets TRC test value at least equal to one (1), rather than limiting this program to installations that have a TRC value at least equal to the TRC value for the overall DSM portfolio.	S - p.7	Ongoing process as part of 2009/2010 Plan, Docket No. 08A-366EG
14	Offer the Self-Directed Custom Efficiency Program to commercial and industrial customers who have an aggregated peak demand at all meters of at least 2 MW in any single month and an aggregated annual energy usage of at least 10 GWh. The customer of record must be the same for all meters aggregated to qualify for this program.	S - p.8	Ongoing process as part of 2009/2010 Plan, Docket No. 08A-366EG

[4] **Reference Key:**
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Table 8: Status Report Compliance and Reporting Requirements (cont'd)

Item #	Compliance Point	Reference[5]	Report Reference / Comment
15	Track expenditures, energy savings, and paybacks associated with each approved project under the Self-Directed Custom Efficiency Program.	S - p.8	Ongoing process as part of 2009/2010 Plan, Docket No. 08A-366EG
16	All incentive payments must be included in the final TRC calculation. At the time of the annual report following the DSM performance year, the incentive amounts will be "proposed" versus "final". PSCo shall include the proposed incentive amounts in their annual report.	E - p.37, paragraph 117	Financial Incentive Calculations, Pages 25 – 29. The proposed financial incentive is included in the final TRC calculation shown on P. 6
17	For any low-income program that achieves a TRC<1.0, the costs and benefits may be excluded from the calculation of net economic benefits. The energy and demand savings may be applied toward the calculation of overall energy and demand savings, for the purposes of determining progress toward annual goals.	E - p.44, paragraph 140	Included in Financial Incentive Calculations, Pages 25 – 29.
GAS			
18	Beginning April 1, 2010 and each April 1st thereafter, each utility shall submit its annual DSM report, application for bonus and DSMCA filing.	G - Rule 4752(b)	Report filed April 1, 2010.
19	Each utility shall also file an annual DSM report and an application for bonus.	G - Rule 4750(b)	Included with Report filed April 1, 2010.
20	The utility's annual expenditure target for DSM programs shall be, at a minimum, two percent of a natural gas utility's base rate revenues, (exclusive of commodity costs), from its sales customers in the 12-month calendar period prior to setting the targets, or one-half of one percent of total revenues from its sales customers in the 12-month calendar period prior to setting the targets, whichever is greater.	G – Rule 4753(h)(I)	PSCo spent a total of $11.6 million on its natural gas DSM programs. This surpassed the expenditure targets - $5,759,859 (2% of gas base rate revenues), and $5,673,820 (0.5% of total gas revenues) set in Docket No. 08A-366EG.
21	In the annual DSM report the utility shall describe its actual DSM programs as implemented. For each DSM program, the utility shall document actual program expenditures, energy savings, participation levels and cost-effectiveness.	G - Rule 4754(a)	See Status Report Section, Pages 30 – 72.
22	Annual program expenditures shall be separated into cost categories contained in the approved DSM plan.	G – Rule 4754(b)	See Program Costs by Budget Category Tables, Pages 17 – 20.

[5] **Reference Key:**
E = Enhanced Plan Order, Docket No. 07A-420E, Decision No. C08-0560
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Table 8: Status Report Compliance and Reporting Requirements (cont'd)

Item #	Compliance Point	Reference[6]	Report Reference / Comment
23	For each DSM program, the utility shall compare the program's proposed and actual expenditures, savings, participation rate, and cost-effectiveness; in addition, the utility shall prepare an assessment of the success of the program, and list any suggestions for improvement and greater customer involvement.	G – Rule 4754(c)	Executive Summary Tables 4a & 4b. Also, see Status Report Section for each program.
24	The utility shall provide actual benefit/cost results for the overall DSM plan and individual DSM programs implemented during the plan year. The benefit/cost analysis shall be based on the costs incurred and benefits achieved, as identified in the modified TRC test. Benefit values are to be based upon the results of M&V evaluation, when such has been conducted as set forth in rule 4755. Otherwise, the benefit values of the currently approved DSM plan are to be used.	G – Rule 4754(d)	See Cost Effectiveness section for portfolio results. Individual program results included in work papers.
25	If the annual report covers a year within which an M&V evaluation was completed, the complete M&V results are to be included as part of the annual report.	G – Rule 4754(e)	See Evaluation, Measurement & Verification 2009 Results, Pages 73 – 92.
26	The utility may file an application for bonus, pursuant to rule 4760. The application for bonus shall include the utility's calculation of estimated bonus applying the methodology set forth in this rule to the utility's actual performance. (II) As a threshold matter, the utility must expend at least the minimum amount set forth in rule 4753 (g)(I), except during a phase-in period as set forth in rule 4753 (g)(III), in order to earn a bonus. (III) The bonus amount is a percentage of the net economic benefits resulting from the DSM plan over the period under review. The percentage value is the product of the two factors: (A) The Energy Factor is determined by the percentage of the energy target achieved by the utility. The energy factor is zero plus 0.5% for each one percent above 80 percent of the energy target achieved by the utility. (B) The Savings Factor is the actual savings achieved divided by the approved savings target. Each of these quantities is expressed in dekatherms saved per dollar expended. (IV) The following is provided as an example of the bonus calculation, using these illustrative numbers: utility achieves 106 percent of its energy target; the utility's savings target is 15,000 dekatherms per $1 million expended, and the utility's actual savings is 18,000 dekatherms per $1 million.	G - Rule 4754(f)	Included with Report filed April 1, 2010. See also Financial Incentive Calculation, Pages 25 – 29.

[6] **Reference Key:**
E = Enhanced Plan Order, Docket No. 07A-420E, Decision No. C08-0560
S = DSM Stipulation & Settlement Agreement, Docket No. 08A-366EG, Decision No. R08-1243
G = Gas Rules, 4 CCR 723-4

Table 8: Status Report Compliance and Reporting Requirements (cont'd)

Item #	Compliance Point	Reference[7]	Report Reference / Comment
27	Acknowledgment of Lost Revenues (ALR) - Separate from any bonus determined by the Commission, the Commission may authorize a utility to recover a calculated amount of revenue that acknowledges that an effective DSM program reduced the utility's revenue. The amount shall be calculated as set forth in Rule 4754(g)(I) (A)-(F)	G – Rule 4754(g)	See Financial Incentive Calculation, Pages 25 – 29.

Financial Incentive Calculations

Electric Financial Incentive

In 2008, the Commission approved a new DSM incentive mechanism for electric programs (Docket No. 07A-420E). This mechanism was further clarified most recently in the Commission's Decision regarding Public Service's Motion for Clarification of Decision Nos. C08-0560 and C08-0769 Regarding Recovery of Incentives. The mechanism includes a $2.0 million "Disincentive Offset" that is grossed-up for income taxes. The Disincentive Offset is awarded when Public Service achieves 80% of the year's savings goal. Based upon the Public Service's effective tax rate, 38.01%, this amount is grossed-up to $3.2 million.

The mechanism also includes a performance incentive that awards a percentage of net benefits for achievement above the 2009 savings goal, 150 GWh. A minor adjustment is made for market transformation programs, allowing for spend in these programs to be excluded from the net benefits. The combined award from the Disincentive Offset and the performance incentive is capped at 20% of 2009 expenditures. The Disincentive Offset along with 60% of the performance incentive comprises the first installment that is awarded in the year following the 2009 performance year. The second installment includes the remaining 40% of the performance incentive. For the 2009 achievements, this amount will be filed on April 1, 2012 with the 2011 DSM Annual Status Report.

Based upon Public Service's achievements of 220 GWh and net benefits of $215,212,330, the total Disincentive Offset and performance incentive for the 2009 performance year was limited by the spending cap of 20% or **$8,772,884**. Table 9 below shows the first and second installments. Table 10 has the full calculation of the electric financial incentive. Based on the scale of net benefits set by

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the Commission, the performance incentive would have been $24.9M (plus $3.2M) absent a cap on spending.

Table 9: Summary of 2009 Electric Incentive

	Amount
1st Installment:	
Disincentive Offset	$3,226,327
Performance Incentive (60%)	$3,327,934
Total 1st Installment	**$6,554,261**
2nd Installment:	
Performance Incentive (40%)	**$2,218,623**
Total	**$8,772,884**

The full calculation of Public Service's 2009 Electric Incentive is shown in Table 10.

Table 10: Public Service 2009 Electric DSM Incentive

(A) = $2M / (1 - Tax Rate)	Disincentive Offset (Grossed-up for Income Taxes)	$3,226,327
	Disincentive Offset (Not Grossed-up for income taxes)	$2,000,000
	Tax Rate	38.01%
	Performance Incentive Calculation	
(B)	Approved 2009 kWh Goal	150,000,000
(C)	kWh from YE Achievements	219,611,146
(D)	Net Economic Benefits from YE Achievements	$215,212,330
	Net Economic Benefits Adjustments:	
(E)	Low-Income Allowance from YE Achievements	$0
(F)	Market Transformation Allowance from YE Achievements.	$26,691
(G)	Incremental Participant O&M - Excluded for 2009 Incentive Calcluation	-$158,294
(H) = (D)+(E)+(F)+(G)	FINAL Net Benefits from YE Achievements	$214,485,612
(I) = (C)/(B)	% of Goal Achieved	146%
(J)	% of Net Benefits Awarded	11.6%
(K) = (H) * (J)	Performance Incentive	$24,880,331
(L) = (A) + (K)	Total Un-Capped Incentive	$28,106,658
(M)	2009 Total DSM Expenditures from YE Achievements	$43,864,419
(N) = 20% * (M)	Incentive Cap (20% of Program Expenditures)	$8,772,884
(O) = (A)	Disincentive Offset	$3,226,327
(P) = (N) - (O)	Capped Performance Incentive	$5,546,557
(Q) = If (L)<(N), (L), (N)	**Total 2009 Proposed Electric Financial Incentive**	**$8,772,884**
	Performance Incentive Installments	
(R) = (O)	**Disincentive Offset**	**$3,226,327**
(S) = (P) * 60%	**+ 60% of Performance Incentive**	**$3,327,934**
(T) = (R) + (S)	**subtotal 1st Installment**	**$6,554,261**
(U) = (P) * 40%	**+ 40% of Performance Incentive - 2nd Installment**	**$2,218,623**
(V) = (T) + (U)	**Total**	**$8,772,884**

Natural Gas Bonus

The natural gas incentive mechanism (Gas DSM "Bonus") is calculated as set forth in 4 CCR 723-4-4754 ("Rule 4754"). The natural gas DSM Bonus is awarded in a single installment, requested by application and approved in the first status report year following the Gas DSM program year in which the savings were achieved. The approved Gas DSM Bonus amount is recovered through the Gas Demand-Side Management Cost Adjustment ("G-DSMCA"), over the same twelve-month period as set forth in 4 CCR 723-4-4752 (b)(I). (See, Rule 4752(g)(I)(E))

The natural gas incentive is awarded on a sliding scale of net benefits, calculated based on an Energy Factor (percent of Dth goal achieved) and a Savings Factor (Dth per $1 million spend). The natural gas DSM Bonus is capped at 25% of expenditures, or 20% of net benefits, whichever is less. For 2009, the natural gas incentive is calculated to be **$872,754**. This bonus is well under both an expenditure cap of $2,896,822 and the net benefits cap of $1,926,014. In addition, Public Service is filing for an acknowledgement of lost revenues associated with gas DSM programs of **$279,643** for a total award of **$1,152,397**. The full calculation of Public Service's 2009 Natural Gas Incentive is detailed in Table 11.

Table 11: Public Service 2009 Natural Gas Bonus and Acknowledgement of Lost Revenue

(A)	Approved Energy Target (Goal) (Dth)	318,141			
(B)	Energy Target Achieved - YE Forecast (Dth)	308,761			
(C)	% of Energy Target Achieved	97 1%			
				Dth	Spend
(D) = Approved Dth / Approved Spend	Approved Savings Target (Dth per $1M)	25,192		318,141	$ 12,628,529
(E) = Achieved Dth / Actual Spend	Savings Target Achieved - Portfolio Total (Dth per $1M)	26,647		308,761	$ 11,587,286
(F) = Low-Income Achieved Dth / Low-Income Actual Spend	Savings Target Achieved - Low-Income Program (Dth per $1M)	34,939		101,785	$ 2,913,251
(G) = If Low-Income Achieve / Spend < Portfolio Achieve / Spend, emove Low-Income from Portfolio Total	Savings Target Achieved - Adjusted (Dth per $1M)	26,647		308,761	$ 11,587,286
(H)	Total DSM Expenditures	$11,587,286			
(I) = 0 5% * ((C) - 80)	**Energy Factor**	8 5%			
(J)= (G)/(D)	**Savings Factor**	1 05772758			
(K) = (I) * (J)	**% of Net Benefits Awarded (Energy Factor * Savings Factor)**	9 0%			
(L)	**Net Economic Benefits Achieved (with Adder)**	$9,630,068			
	Net Economic Benefits Adjustments				
(M)	Low-Income Allowance from Plan	$77,242			
(N) = (L) + (M)	**FINAL Net Economic Benefits Achieved (No Incremental Participant O&M for 2009 Gas Projects Included)**	**$9,707,310**			
(O)= MIN(20%*(L),25%*(H))	**Incentive Cap (20% of net economic benefits or 25% of expenditures, whichever is less)**	**$1,926,014**			
(P) = If (K)*(L)<(O), (K)*(L), (O)	**Total 2009 Proposed Gas Bonus**	**$872,754**			
	Business/Residential Allocation		**%**		
(Q)	Business Achieved Savings (Dth)	25,226	**8%**		
(R)	Residential & Low Income Achieved Savings (Dth)	283,535	**92%**		
	Total Savings	308,761	100%		
	Allocated Bonus				
(S) = (P) * (Q)	**Business**	**71,305**			
(T) = (P) * (R)	**Residential & Low Income**	**801,449**			
(U) = (S) + (T)	**Total**	**872,754**			
	Acknowledgement of Lost Revenue [ALR] Calculation:				
	Dollar Value Per Therm				
(V)	**Business (Non-residential)**	**$ 0.11027**			
(W)	**Residential**	**$ 0.08882**			
	12-Month Therm Reduction Impact From 2009 Programs				
(X)	**Business (Non-residential)**	**252,260**			
(Y)	**Residential**	**2,835,350**			
	ALR Totals				
(Z) = (V) * (X)	**Business (Non-residential)**	**$ 27,816**			
(A1) = (W) * (Y)	**Residential**	**$ 251,827**			
(A2) = (Z) + (A1)	**Total ALR**	**$ 279,643**			
(A3) = (P) + (A2)	**Total Gas Bonus and ALR**	**$ 1,152,397**			

Business Segment

The business DSM programs serve commercial and industrial customers of all sizes with a broad portfolio of offerings designed to meet the needs of this varied segment. Eligible customers are on a Public Service business rate for electric service and/or retail natural gas service. The portfolio has three main components. Prescriptive programs focus on the most common equipment. Custom programs encourage savings from unique situations, often involving newer technologies or measures. Study and educational programs help customers identify efficiency opportunities.

Table 12a: Business Segment – Electric Programs (Budget to Actual)

		Budget					Actual				
	2009	Electric Participants	Electric Budget	Net Gen. kW	Net Gen. kWh	Modified TRC	Electric Participants	Electric Budget	Net Gen. kW	Net Gen. kWh	Modified TRC
Business Segment											
	Compressed Air Efficiency	231	$ 1,009,956	1,474	9,181,365	4.03	51	$ 543,707	470	4,011,600	3.26
	Cooling Efficiency	234	$ 2,288,950	3,035	6,168,583	1.96	175	$ 1,715,756	3,551	6,563,609	3.45
	Custom Efficiency	43	$ 2,474,819	1,372	7,467,223	2.06	102	$ 1,949,032	957	10,176,204	3.46
	Data Center Efficiency	10	$ 531,350	571	5,920,281	4.57	-	$ 153,829	-	-	0.00
	Energy Management Systems	29	$ 777,692	47	4,238,885	2.31	14	$ 771,782	163	5,552,852	3.15
	Lighting Efficiency	632	$ 4,418,019	7,989	31,856,916	3.13	1,252	$ 6,087,464	16,191	74,789,100	4.13
	Motor & Drive Efficiency	1,100	$ 2,582,081	3,681	20,711,411	4.96	342	$ 2,418,222	3,910	24,896,160	5.17
	New Construction	46	$ 3,971,921	5,506	20,784,026	4.09	26	$ 3,169,121	3,074	11,914,771	3.87
	Process Efficiency	0	$ 414,850	77	487,371	1.37	4	$ 459,583	115	797,990	1.73
	Recommissioning	28	$ 562,633	354	3,947,516	2.05	53	$ 767,096	341	4,722,687	2.48
	Segment Efficiency	51	$ 644,452	80	528,904	0.86	8	$ 330,602	43	59,197	0.32
	Self-Direct	5	$ 348,300	478	2,182,451	4.46	-	$ 79,218	-	-	0.00
	Small Business Lighting	50	$ 789,234	316	1,153,540	1.86	15	$ 318,342	82	298,028	1.37
	Standard Offer	24	$ 706,200	813	1,766,186	2.50	-	$ 207,853	-	-	0.00
Business Segment Total		**2,483**	**$21,520,457**	**25,793**	**116,394,660**	**3.29**	**2,042**	**$18,971,607**	**28,897**	**143,782,198**	**4.16**

Table 12b: Business Segment – Gas Programs (Budget to Actual)

		Budget					Actual				
	2009	Gas Participants	Gas Budget	Net Annual Dth Savings	Annual Dth/$M	Modified TRC	Gas Participants	Gas Budget	Net Annual Dth Savings	Annual Dth/$M	Modified TRC
Business Segment											
	Boiler Efficiency	146	$ 475,834	31,650	$ 66,514	2.68	50	365360.96	13,019	$ 35,634	1.54
	Custom Efficiency	14	$ 198,578	13,492	$ 67,944	2.42	7	162180.786	6,838	$ 42,162	1.67
	Energy Management Systems	14	$ 132,121	6,286	$ 47,579	1.69	1	26270.44	1,866	$ 71,018	1.00
	Furnace Efficiency	50	$ 44,346	4,204	$ 94,803	4.25	33	36405.83	651	$ 17,893	0.53
	New Construction	9	$ 184,291	11,747	$ 63,743	1.87	-	56644.82	-	$ -	-
	Process Efficiency	6	$ 39,300	9,049	$ 230,261	7.22	-	14581.08	-	$ -	-
	Recommissioning	8	$ 88,363	2,199	$ 24,883	1.38	8	52614.28	2,852	$ 54,206	1.71
	Segment Efficiency	5	$ 25,754	-	$ -	0	-	41080.14	-	$ -	0.40
	Standard Offer	12	$ 21,000	473	$ 22,503	1.35	-	15013.85	-	$ -	0.22
Business Segment Total		**264**	**$ 1,209,587**	**79,100**	**$ 618,231**	**2.69**	**99**	**$770,152.19**	**25,226**	**$ 32,755**	**1.39**

The electric portfolio performed very well on the strength of its established programs, while using 2009 to build pipeline for delivering its newer offerings. Lighting Efficiency led the way on the strength of its higher rebates and increasing comfort level with trade partners and customers.

Custom Efficiency showed strong improvement as customers became more familiar with its process and value. The program focused on educating trade allies, account management, and customers in the use and requirements of the Custom rebate process and M&V requirements. Combined with the pipeline of projects that had been built in previous years, the program was able to show strong growth from previous performance.

Public Service launched its first comprehensive natural gas DSM portfolio in 2009 and struggled to penetrate the market. To improve portfolio performance, the Company targeted education, awareness and quick-to-implement strategies during the year and used a combination of direct mail, print advertising, seminars, trade visits and creative promotions in its marketing efforts. The combination of being new in the market, customers choosing to defer equipment replacement until market conditions improve, and the exclusion of gas transportation customers, caused Public Service to miss its natural gas goals in 2009. The Company will continue to build on its 2009 achievements in 2010 and work to further penetrate this market through the expansion of our trade outreach strategy, the addition of technologies and strategies to the natural gas portfolio, and leveraging complimentary messaging from communities also promoting energy efficiency.

In addition to the natural gas portfolio, several electric programs were new to the business portfolio in 2009. Data Center Efficiency, Process Efficiency, Segment Efficiency, Self-Directed Custom Efficiency, and Standard Offer all used 2009 to build trade networks and identify projects to increase market penetration in future years.

Electric and gas spending in the Business Segment were both below budgeted levels. Electric spending was lower than anticipated due to the more cost-effective programs such as Lighting Efficiency and Motor & Drive Efficiency bringing in the majority of impacts. Gas spending in the Business segment was lower than budgeted due to lower than expected customer participation.

Business Programs

Boiler Efficiency

The Boiler Efficiency Program provides rebates for business retail natural gas customers who purchase high efficiency natural gas or dual-fuel boilers for heating or process loads. The program has three components: energy efficient boiler systems, boiler auxiliary equipment such as controls and system improvements, and custom boilers.

1) Energy Efficient Boiler Systems
Public Service rebates boilers that exceed the minimum efficiency levels established by the ASHRAE 90.1 Energy Standard and the Federal Energy Management Program (FEMP). These boiler systems are generally 5 to 7% more efficient than standard boilers.

2) Boiler Auxiliary Equipment
The performance of a boiler system can be enhanced with controls and system efficiency improvements. Rebates are based on the incremental cost of efficient equipment with the exception of boiler tune-ups. Tune-up rebates include labor cost as well. The following are rebated:

Boiler Tune-ups, including the following activities:

- Adjustment of draft control;
- Measurement of combustion efficiency using an electronic flue gas analyzer at steady state conditions;
- Installation of flue restrictions;
- Verification of adequacy of the combustion air intake;
- Weather or operating schedule permitting, clean fire-side of the heat exchanger,
- burners, and the combustion chamber;
- Sealing of the combustion chamber;
- Uprate or derate the fuel input;
- Adjustment of air flow and reduction of excessive stack temperatures;
- Cleaning and inspection of burner nozzles;
- Complete visual inspection of system piping and insulation;
- Inspection of fan belts and blowers; and
- Lubrication of moving parts.

3) Custom Boilers

While every attempt is made to create prescriptive rebates for high efficiency options, some energy saving solutions require individual evaluation to determine cost-effectiveness. These projects are evaluated under the Custom Efficiency process and require preapproval following all of the guidelines of the Custom Efficiency Program. Exceptionally large boiler systems (greater than 10 million BTUH) or unique systems will be analyzed for rebates in the Custom Efficiency Program.

During this program's initial year, we focused on raising awareness, training, and educational efforts surrounding the program's launch. Efforts included three seasonally phased direct-mail campaigns, customer giveaways, a trade incentive promotion, webinars for customers and trade, several internal sales and business call center training sessions, internal sales milestone awards, customer e-mail campaigns, natural-gas savings handouts, Company newsletters, online advertising and marketing, trade association partnerships, trade- and customer-focused events and many direct sales calls. Additionally, we set up business systems to process the rebates, engineered calculators to determine appropriate energy savings per project, and trained our rebate operations team on processing the rebates.

Deviation from 2009 Goal

During 2009, the Boiler Efficiency Program fell short of the filed energy savings goal and under-spent on budget. This is due to multiple factors, including lower than anticipated 2009 natural-gas prices, the severe economic recession, very tight customer operating and capital budgets, and low customer awareness initially in the marketplace as we began the program without a pipeline of likely projects. Sales cycles for boiler equipment typically cover several years, leaving only planned boiler replacements and tune-ups as opportunities for influencing efficiency in 2009.

Significant program changes will be coming into effect in 2010 to enable us to reach goal. An expansion of our prescriptive program offerings will include steam boilers, hot water heaters, pipe insulation and Plan A / Plan B boiler options. These changes, coupled with increased distributor and vendor education, marketing blitzes and a limited time promotion for free boiler tune-ups is expected to improve participation considerably.

Changes in 2009

60-Day Notice. Through a 60-Day Notice, implemented in May 2009, Public Service updated the Boiler Efficiency Program technical assumptions and modified rebate amounts for new boilers. Technical assumption changes involved correcting mathematical errors in the formulas for calculating new-boiler and steam-trap energy savings. We also reduced boiler operating hours to account for multiple boilers running partial loads at a commercial facility rather than a single boiler fulfilling the facility's needs.

Rebate amounts for non-condensing new boilers were adjusted from $400 to $600/MMBTUH, and condensing new-boiler rebates were adjusted from $2,000/MMBtuH to $2,500/MMBTUH in order to drive further participation in the marketplace and make new-boiler rebate dollars per dekatherm more in line with the DSM portfolio average.

Other program updates (not requiring a 60-Day Notice). Instead of requiring equipment costs when calculating the rebate amount, the program application now requests project costs. This adjustment allowed for labor to be included. The equipment and labor costs are seldom broken out on customer invoices and this enabled for more efficient rebate processing and allowed customers to more accurately know their rebate amount before finalizing their purchase decision. Additionally, in the business environment customers typically look at the total project cost, not equipment-only costs, when making a purchase decision. This change resulted in higher rebates for auxiliary components in 2009.

To simplify the program application, we removed estimated full-load operating hours from the rebate application because we use a "deemed value" to calculate the boiler's energy savings and customers often don't have an accurate estimate of this number when completing the rebate application. We also removed boiler age because it's not relevant to the boiler's rebate. We only collect serial numbers for tune-ups, for which we use that information to ensure compliance with program rules.

Other improvements to the program included clarification of requirements to state that:

- Only <u>new</u> boilers larger than 10 million BTU per hour are required to undergo a Custom analysis.
- Tune-ups and auxiliary equipment for boilers larger than 10 million BTU per hour are allowed to participate in the prescriptive Boiler Efficiency Program because the energy savings for these improvements are known and predictable regardless of boiler size. This was not a change but was not clearly stated in the program's initial filing.
- Because the expected energy savings from a boiler tune-up is expected to diminish over a 2-year period, we allow customers to receive a tune-up rebate every other calendar year. This was not a change but was not clearly stated in the program's initial filing.

Compressed Air Efficiency

The Compressed Air Efficiency Program helps customers address inefficiencies in their compressed air systems. The program encourages repair and redesign of existing systems, and encourages the

purchase of efficient options for new and replacement systems. The program has three components:

- Prescriptive rebates for new no-loss air drains and prescriptive rebates for replacement Variable Frequency Drive (VFD) compressors of 10 hp to 50 hp.
- Study rebates of up to $2,500 for 50 hp to 100 hp systems and 75% of the study costs up to $15,000 for systems of more than 100 hp. To receive study rebates, the customer must repair at least half of the leaks identified in the study (which usually requires no customer capital expense, but significantly reduces energy waste).
- Custom rebates of up to $400 per kW saved by improvements identified by the studies. Improvements can include capital purchases, such as qualifying compressors and "process" changes, such as piping modifications or horsepower reductions.

Deviation from Goal

In 2009, the program fell short of its goal and, as a result, spending was lower than planned. Vendor perceptions seem to be that compressed air users have been particularly reluctant to make capital improvements during the economic downturn. To a lesser extent, vendors have pointed to potential opportunities among 7.5 hp to 10 hp compressors, but these compressors are too small to have much potential for consumption savings. Finally, the compressed air study portion of the program uncovered fewer custom projects than anticipated. To improve the program, we are evaluating prescriptive rebates for additional types of equipment. In addition we are offering more educational activities for vendors conducting compressed air studies, which will work towards improving the thoroughness of the studies.

Changes in 2009

60-Day Notice. Through a 60-Day Notice, implemented in June 2009, Public Service updated the prescriptive component of the Compressed Air Program to reflect current market conditions for VFD compressors and no-loss air drams. This program improvement has contributed about 10% of the overall compressed air savings.

Cooling Efficiency

The Cooling Efficiency Program offers incentives to customers who purchase and install high efficiency cooling equipment. Rebate dollars, as well as study funding, are offered to assist in buying-down the upfront cost associated with purchasing high efficiency equipment and to minimize the associated payback. Customers are able to qualify for rebates through a mix of prescriptive rebates for common high efficiency equipment and custom rebates for newer and more system-based high efficiency solutions. Marketing efforts and events are directed toward educating customers on making strategic decisions that will benefit their facility as well as to vendors who work with customers on a daily basis.

Deviation from Goal

The Cooling Efficiency Program exceeded its annual achievement goals in 2009 due to strong performance in the prescriptive and custom components of the program. Strong performance in

2009 was dependent on a strong pipeline and increasing vendor relationships. The filed budget was under spent on the other hand, due to the postponement of certain planned staff resources.

Changes in 2009

60-Day Notice. There were two 60-Day Notices that made updates to the Cooling Efficiency Program offering. The first notice, implemented in May 2009, made an adjustment to the current code requirements of IECC 2006 from the previous program assumptions which were based on IECC 2003. The second notice, implemented in September 2009, modified the minimum qualifying efficiency levels for screw chillers to better align with available chillers offered in the market. Both modifications allowed the program to offer a better solution to help move customer decisions towards energy efficiency.

Custom Efficiency

The Custom Efficiency Program is designed to provide rebates on a wide variety of equipment and process improvements that do not fall within Public Service's prescriptive rebate programs. Custom Efficiency rebates are available to Public Service electric and gas business customers in Colorado. Qualified participants include: building owners lighting, HVAC, refrigeration, and building controls contractors, architecture and engineering firms, energy services companies, equipment manufacturers and distributors, and project financing entities. All Custom Efficiency projects require pre-approval before purchase and installation and must pass TRC tests within our analysis. This process is in place to help insure free ridership is kept to a minimum and that rebates are awarded to projects that are both technically and financially sound.

In 2009, some of the technologies rebated included: refrigerated dairy cases, window replacements, and foodservice cooking equipment. Public Service expects that the Custom Efficiency Program will experience some erosion of future participants as the Self-Directed Custom Efficiency and Process Efficiency Programs ramp up.

Deviation from Goal

The Custom Efficiency Program exceeded participation and achievement goals in 2009. This was due in large part to training and communication outreach efforts by the Account Management and Business Solutions Center teams to effectively focus on their sales delivery strategy. The budget for Custom Efficiency was under-spent. The initial budget estimate developed in 2008 was the result of conservative forecasting of actual costs that would occur 2009.

Changes in 2009

There were no changes in 2009.

Data Center Efficiency

The Data Center Efficiency Program, launched in mid-March 2009, is designed to help customers address energy conservation opportunities in both new and existing data centers, aiming to reduce

energy usage while increasing utilization and maintaining high reliability. We offer data center study funding (up to 75%, not to exceed $25,000), and rebates up to $400 per kW saved for projects identified in a study. In 2009 significant attention was given to identifying qualified study providers, and implementing promotion and advertising strategy which included events, account manger communications, online banner ads, trade relations outreach and customer direct mail.

Deviation from Goal

This was a new program in 2009 and, as expected, did not record any achievements towards its goal and did not pass the benefit-cost analysis test. Program effort and spending was focused on establishing the program, engaging with the customers and trade, and tackling tough M&V issues surrounding servers. We did achieve success generating notable trade and customer interest resulting in several applications for study funding, but did not receive any completed studies for review by the end of 2009.

Because this is s a study-based program, we anticipate a longer sales cycle for the customer to complete the analysis and implement projects. To build the pipeline for future years, we are increasing efforts to focus on outreach and education with data center customers and trade, and addressing measurement issues.

Changes in 2009

60-Day Notice. To improve the program, Public Service implemented a 60-Day Notice in July 2009, to add a Fast Track study option allowing customers to submit a previously completed study for review. Studies we approve under the Fast Track path would then be eligible for implementation rebates of up to $400 per kW saved.

Other program updates (not requiring a 60-Day Notice). In November 2009, we removed a barrier to participation by removing costly and challenging measurement requirements from the study. The change is expected to make the study easier and less costly for the customer.

Energy Management Systems

The Energy Management Systems (EMS) Program is designed to encourage customers to install or upgrade building control systems. Such systems are centralized networks programmed to monitor and control lighting and mechanical systems within a building, and allow customers to reduce energy costs by adjusting usage of equipment.

The program offers rebates of up to $400 per saved kW and up to $7 per Dth saved. Systems covered in the program include new energy management systems in an existing building, replacing a non-functional energy management system, replacing an obsolete energy management system, and adding functionality to a current system. The duplication of existing systems or replacement of an obsolete system does not qualify for a rebate under the EMS Program.

Deviation from Goal

The EMS Program exceeded its electric goal, with spending approximately at goal. Contributing to the performance was:

- In-depth Company involvement with each project to make sure customers and vendors had the opportunity to add more descriptive information for appropriate analysis of costs and energy savings.
- One extremely large project. After measurement and verification, the project's actual measured savings was even greater than anticipated by the pre-approval analysis.

The program did not achieve its goal for gas savings. A sample of 2009 projects indicated that most EMS applications were for customers who are not PSCo retail gas customers, and that the majority of applications for retail gas customers did not meet the requirements for project approval. In 2010 we are working with lists of Small Business and Account Managed retail gas customers to specifically target for improvement.

Changes in 2009

There were no changes in 2009.

Furnace Efficiency

Public Service's Furnace Efficiency Program rewards business customers with rebates when they choose a high-efficiency furnace. Benefits to the customer include the offset of initial equipment costs and the long-term natural gas savings during the lifetime of the equipment. The program's market transformation strategy is moving customer behavior toward the purchase of the highest efficiency heating products rather than federal minimum standard.

Trade relations are the strongest promotional channel for this program. All planned customer and trade marketing tactics were implemented in addition to seasonal promotions. A spring trade promotion kicked off the new program by building significant awareness through a double-rebate offer. Trade partners were encouraged to focus on selling high-efficiency equipment at this time when many customers are conscious of the full winter's heating bills. A second trade promotion held in the fall encouraged trade partners to submit all heating rebate applications before mid-October to receive a cash incentive.

Deviation from Goal

The Furnace Efficiency Program did not reach its gas dekatherm goal in 2009 and did not pass the gas benefit-cost test. This can be attributed to multiple factors, including low 2009 natural gas prices, the economic recession, very tight customer operating and capital budgets, and low awareness of the program initially in the marketplace, as we began the program without a pipeline of likely projects. Program spending was short of the approved budget, but was in line with savings and participation. Coming into the second year of the program we are building on the awareness campaign of 2009. Distributor and vendor meetings, in conjunction with print marketing and trade incentives are being considered to improve participation and reach the 2010 goal.

Changes in 2009

60-Day Notice. Through a 60-Day Notice implemented in June 2009, Public Service revised the Furnace Efficiency Program operating hours to reflect specific Colorado weather temperature set points applied to meteorological data, rather than ASHRAE codes which the original assumptions were based on. The Colorado Weather Bin data provides more accurate assumptions for Colorado's heating season. These changes are expected to decrease gas savings by approximately 75% for the average project, however participation levels were increased in order to keep the total program goal the same.

Lighting Efficiency

The Lighting Efficiency Program offers cash rebates to customers who purchase and install energy efficient lighting equipment in existing or new construction facilities. The intent of the rebate offering is to encourage customers to purchase more efficient equipment by reducing the incremental upfront cost of the equipment. The program offers prescriptive or fixed dollar rebates for the most common equipment used in retrofit projects and new construction. Custom rebates are available for equipment not directly covered in the prescriptive program. Additionally, we offer Lighting Redesign studies and incentives for customers who need assistance determining the appropriate light levels for their facilities.

Deviation from Goal

2009 was a very successful year for the Lighting Efficiency Program. Program achievements were nearly double what had been planned, with spending disproportionately lower than achievement due to the diversity of measures rebated and efficiencies gained in program administration. Factors contributing to this achievement included increased rebate levels in 2009 and more active customer and trade participation.

Changes in 2009

There were no changes in 2009.

Motor & Drive Efficiency

We designed the Motor & Drive Efficiency Program to reduce the barriers that prevented customers from purchasing high efficiency NEMA Premium motors and variable frequency drives on fans and pumps. We offered prescriptive rebates to eligible customers who installed qualifying equipment, and custom rebates to those customers whose projects did not meet the prescriptive criteria.

Deviation from Goal

The Motor & Drive Efficiency Program did well in 2009, despite the economic downturn. The program under-spent its budget while surpassing its energy savings target. Although the program is still performing well, the Company did note a decrease in customer interest compared to years past.

Changes in 2009

60-Day Notice. Public Service updated the Motor & Drive Efficiency Program through a 60-Day Notice, implemented in June, 2009, to reflect changes to program eligibility, operating hours, and the Enhanced Plan B component. Specifically, customers can now participate in the program if they complete their applications within 24 months of purchase. In addition, a reference to minimum operating hours for prescriptive drives was eliminated, as all prescriptive motors will follow the deemed savings approved with the filed Plan. Finally, the range of horsepower for Enhanced Plan B was increased to 1 to 500 hp.

New Construction

The New Construction Program's mission is to provide Public Service business customers with solutions to their future energy needs. By providing whole building energy analysis for larger buildings and a checklist of opportunities for smaller buildings, we can help customers achieve their energy and sustainability goals by making energy efficient equipment and collaborative design a priority.

In 2009, the primary program component available to customers was Energy Design Assistance. Features of the program included:

1. Energy Consulting Services: We paid for the services rendered by an energy consultant to help facilitate the decision-making process for our customer. These services included the cost of modeling the entire building for energy savings as well as individual strategy modeling, schematic description of selected strategies, and bundling of strategies into packages of measures, which were analyzed for their net effect on the building energy use.

2. Construction incentives: Once a package of energy savings was identified, an incentive commensurate with the energy savings projections was offered to the building owner by Public Service based on bundle selection. Rebates are set at $300 per kW and $7 per Dth.

3. Measurement and Verification: The design assistance consultant reviewed construction documents for opportunities selected in bundle selection. Upon completion of construction, the operation of the areas affected by the strategies was reviewed in the field to provide feedback to the owners and design team on the as-built results.

4. Design Team Reimbursement: While design teams are often interested in exploring energy saving alternatives, the typical fee structure provides little room for alternative analyses. The program offers a financial reimbursement to help compensate the design team for their time participating in the process.

In June 2009, Energy Efficient Buildings was added to address the needs of smaller buildings or buildings later in their design process. The application is built into a calculator tool (EEB Calculator) that allows the customer to package measures into one place versus filling out multiple applications. Rebates vary by project and are based on prescriptive levels for common end-uses, and $400 per kW and $7 per Dth for non-prescriptive measures.

Deviation from Goal

The program did not meet goals in 2009 and did not pass the gas benefit-cost analysis test primarily due to the severe recession and continued downturn in the commercial new construction market. Projects expected to finish in 2009 were either pushed out to future years or cancelled entirely. While not all projects were expected to finish in 2009, our records indicate that 22 projects have been cancelled and 12 projects put on indefinite hold. Due to long lead times (two to four years), there isn't a way to build a contingency plan to fill the gap in the short-term. Energy Efficient Buildings was launched later than expected and did not achieve any impacts in 2009. While it does not have quite as long of a lead time as Energy Design Assistance, a late June release proved too late in the year to close any projects.

Primary actions taken to improve results for future years include working more closely with the consultants selected to administer the program in relation to marketing. In addition, we are meeting with a group of energy modeling firms that have suggestions to improve the program to increase participation. Finally, we are working on an improved version of the EEB Calculator to avoid customer frustration and streamline the participation process.

Changes in 2009
The major policy change in 2009 related to how to interpret code baselines when communities establish codes stricter than the existing program baseline (ASHRAE 90.1 2004). We decided to revise our standard to reflect the stricter codes adopted by various communities (e.g., Boulder).

Process Efficiency

Process Efficiency was a new program for the Colorado market in 2009 and was designed to target energy intensive processes at large industrial facilities. The program is primarily intended to identify and incent large process changes that are not currently completed through Custom Efficiency or the prescriptive programs, and establish business practices that drive additional conservation measures in the future. The program uses a three-phase approach to provide customers with the resources necessary to drive conservation through the development and implementation of a holistic, sustainable energy management plan. Participation in this program results in not only a list of conservation opportunities with a plan for implementation but also involves integrating energy efficiency into how the customer completes their daily business practices.

Deviation from Goal

The program experienced greater than expected participation and surpassed both kW and kWh goals in 2009 for electric measures. This success should be carried into 2010 with many of the customers moving to Phase 2 and 3 of the program and implementation of the energy savings measures that have been identified through the program. Gas goals were set very conservatively due to the limited

number of large industrial customers who qualify for the program and utilize Public Service retail gas. This conservative approach proved to be well founded as we were unable to achieve the 2009 gas goal and did not pass the gas benefit-cost analysis test. Industrial customers who qualify for the program have been identified and will be approached in 2010 to see if participation is possible given the strict energy savings targets that potential customers must achieve.

In 2010, we plan to double our participation in the phase I portion of the program as customers become more aware of the program and efficiency becomes a higher priority to their management group. Through this increase in program involvement we are anticipating more gas efficiency opportunities, but still understand that most of our potential participants will be gas transport only.

Changes in 2009

There were no changes in 2009.

Recommissioning

The Recommissioning Program is designed to assist electric and/or natural gas business customers in improving the efficiency of their existing building operations. It focuses on "tuning up" their existing systems to run as efficiently as possible and operate as intended, rather than purchasing new equipment. The program offers study funding to identify measures and implementation rebates to encourage the implementation of recommissioning measures.

Deviation from Goal

The Recommissioning Program met or exceeded its electric and gas savings and participation goals. Many measures implemented in 2009 had high energy savings, but low demand savings, creating a discrepancy between energy and demand achievement. We exceeded our electric participation goal as some customers completed studies on more than one building, which we were not anticipating. We exceeded our savings goals as there were a couple of larger buildings, with more savings opportunities that went through the recommissioning process. We exceeded our electric budget due to exceeding the savings goals and also spending money on developing calculation tools for study providers to help standardize the recommissioning process. We did not spend the approved gas budget as we did not have to pay out an implementation rebate for the gas measures because the payback for those measures were less than one year.

Changes in 2009

There were no changes in 2009.

Segment Efficiency

The Segment Efficiency Program targets specific market sectors with specialized packaged energy conservation offerings. The program takes a sector and stakeholder-specific approach to pursuing energy efficiency and markets program offerings to support that effort. For 2009 and 2010, this

program is focused on the commercial real estate sector, targeting qualifying office buildings of 50,000 square feet or larger and includes:

- A low-cost **Preliminary Report** that describes the building's energy-consuming systems, identifies energy conservation opportunities, and provides estimates of the projected savings, costs and rebates for each measure. Customers are eligible for a Preliminary Report rebate of $3,500 (50% of the total cost).
- An optional **Investigative Study** includes a net operating income analysis and detailed engineering calculations for energy conservation measures. Customers receive Investigative Study funding up to 50% of the study cost, not to exceed $20,000.
- **Bonus rebates** up to 30%, in addition to regular rebate levels, on identified energy conservation opportunities that are implemented within the program timeframe.

Deviation from Goal

The program fell short of its goal and did not pass the benefit-cost analysis test. Spending was also lower than planned. Launched in early 2009, the Program was temporarily placed on hold mid-year in order to revise the offering to better meet customer needs. As a result, fewer than planned studies were completed and only three small projects were implemented. We have revised the product to better meet customer needs and include an emphasis on identifying more low-cost, no-cost opportunities which can be quickly implemented by the customer. The Preliminary Report cost has also been lowered to $2,500. We believe these changes will create a strong demand for the program in 2010 and build the pipeline for on-going energy efficiency within the customer base. The program is now actively promoted through our account management team as well as with local organizations.

Changes in 2009

The original filing stated that preliminary report cost was $7,000 and customers would be eligible for a $3,500 rebate. However since the actual cost of the study was $8,000, we provided a rebate of $4,000 in order to maintain study funding at 50% of cost. Additionally, we increased the study funding for engineering studies from 50% up to $20,000, to up to 75% up to $25,000.

Self-Directed Custom Efficiency Program

The Self-Directed Custom Efficiency Program provides large commercial and industrial electric customers in Colorado the opportunity to self-fund energy conservation projects at their facilities. Customers who engineer, implement and commission qualifying projects can receive increased rebate levels to offset their costs of implementation. The dollar value of these rebates will be based on the amount of energy savings attained based on $525/kW or 10¢/kWh. Participants must be pre-qualified and have an aggregated peak demand of 2 MW and annual energy sales of 10 GWh to participate.

Deviation from Goal

The Self-Directed Custom Efficiency Program did not achieve participation and achievement goals, and did not pass the benefit-cost analysis test. Budget was also under-spent in 2009. This was the result of the program launching in mid-2009 and a lack of customer awareness and understanding. In addition, this program requires intensive customer side engineering and analysis and the lead time from proposal submittal to project completion is very significant. Several projects were pre-approved and nearing completion in late 2009. We expect this program to have significant participation increases in 2010.

The budget was under-spent due to projects not being completed by year-end 2009. Administrative costs were spent in marketing the program and efforts to fill the 2010 pipeline.

Changes in 2009

There were no changes in 2009.

Small Business Lighting

The Small Business Lighting Program offers free lighting audits and attractive rebates for lighting upgrades and special services to small and mid-sized business facilities with peak demand of up to 400 kW. The program specifically targets barriers that often prevent small businesses from investing in energy efficiency products including limited financial resources and time, limited knowledge of lighting equipment and lack of access to quality contractors.

The Small Business Lighting Program offers qualifying businesses:

- A free lighting audit with cost-saving recommendations.
- Substantial rebate incentives for installing energy-saving measures, based on our standard lighting rebates.
- Start-to-finish oversight of the lighting upgrade.

Deviation from Goal

Launched in June 2009, this program achieved lower than planned goals and spending. While the program has experienced a slower than anticipated start, interest in the program from both small business customers and the lighting trade continues to grow and we expected continued growth in 2010. Continued efforts in 2010 will include more involvement in Chambers of Commerce in each community, actively promoting common retrofits to specific segments, and customer and vendor trainings

Changes in 2009

There were no changes in 2009.

Standard Offer

The Standard Offer Program is designed to support conservation that is delivered through the Energy Service Company (ESCO) trade allies and support customers who use alternative financing to implement energy saving measures. Although it is targeted to public entities such as K-12 schools, colleges and universities, and state, local, and county government, all business customers are eligible to participate.

The program is a result of working with the Governors Energy Office and the Colorado Energy Services Coalition. It is designed to help remove some of the barriers that this trade organization identified to customers implementing projects. It also supports the Governor's initiative for government entities to consider using ESCO services to implement conservation measures.

The Standard Offer Program provides customers with an opportunity to identify and implement a comprehensive package of cost-effective efficiency measures whether they have internal resources and funding or they want to use outside resources such as those from an ESCO. The program differs from Public Service's other DSM offerings in that it allows customers to work with Energy Service Companies if desired. By doing so, customers are open to alternative funding mechanisms for their conservation projects that may not be available through the Company's other programs. The technical energy audit used in this program is an investment grade audit, which can be used by the customer to secure internal or external funding for the project. Additionally, bundling individual measures into comprehensive projects minimizes required Company and customer resources, and increases the size of the projects, which draws more interest from contractors, equipment suppliers and ESCOs.

Deviation from Goal

The program did not have any completed projects or achieve any electric or gas impacts for 2009, and did not pass the benefit-cost analysis test. This was in part due to the delayed launch of the program and longer than expected lead times for implementation of conservation measures through the program. The program has a healthy pipeline of projects for 2010 and is expected to perform well for the year. Corrective actions taken to date include a review of the current process and streamlining it where possible. In addition, closer coordination with account managers should keep projects moving through the pipeline faster. Finally, we will be working with the Energy Services Coalition to review recommendations they have made and implement what we can to increase participation within the parameters of a cost-effective program.

Changes in 2009

There were no changes in 2009.

Residential Segment

The Residential Segment serves customers who live in single-family dwellings, apartments and condominiums and receive electric and/or natural gas from Public Service. The Company focuses on cost-effective, direct impact programs that target household appliances and lighting. This effort is supplemented with educational services intended to further increase customer understanding and interest in conservation and energy efficiency.

Table 13a: Residential Segment – Electric Programs (Budget to Actual)

		Budget					Actual				
	2009	Electric Participants	Electric Budget	Net Gen. kW	Net Gen. kWh	Modified TRC	Electric Participants	Electric Budget	Net Gen. kW	Net Gen. kWh	Modified TRC
Residential Segment											
	Energy Efficient Showerhead						13,149	$ 74,741	-	2,390,833	24.33
	ENERGY STAR New Homes	100	$ 56,000	10	117,030	1.74	818	$ 130,830	(76)	359,057	0.21
	ENERGY STAR Retailer Incentive	16,469	$ 2,658,384	640	2,455,560	1.17	3,803	$ 233,975	6	210,707	0.93
	Evaporative Cooling Rebate	3,800	$ 1,475,900	3,803	2,071,569	6.75	2,670	$ 1,089,475	2,771	1,181,975	4.13
	High-Efficiency A/C Program	-	$ 1,370,000	-	-	-	119	$ 418,288	112	87,725	0.46
	Home Lighting & Recycling	250,000	$ 3,127,951	3,307	46,237,797	6.39	340,442	$ 3,809,182	4,492	58,263,630	6.48
	Home Performance w/ ENERGY STAR	300	$ 171,949	31	374,715	1.94	1	$ 51,619	0	1,367	0.02
	Insulation Rebate						-	$ 7,446	-	-	-
	Refrigerator Recycling	3,250	$ 659,703	297	2,189,309	2.01	699	$ 168,745	64	470,654	1.69
	School Education Kits	6,600	$ 164,211	54	815,800	2.99	30,042	$ 332,471	83	1,559,609	4.18
	Saver's Switch	19,500	$ 12,286,434	22,218	45,359	4.21	20,427	$ 12,106,161	22,656	47,515	4.28
Residential Segment Total		**300,019**	**$21,970,532**	**30,360**	**54,307,139**	**4.70**	**412,170**	**$18,422,932**	**30,107**	**64,573,072**	**4.71**

Table 13b: Residential Segment – Gas Programs (Budget to Actual)

		Budget					Actual				
	2009	Gas Participants	Gas Budget	Net Annual Dth Savings	Annual Dth/$M	Modified TRC	Gas Participants	Gas Budget	Net Annual Dth Savings	Annual Dth/$M	Modified TRC
Residential Segment											
	Energy Efficient Showerhead	20,000	$ 199,514	14,280	$ 71,576	5.99	74,513	$ 464,173	65,400	$ 140,895	11.84
	ENERGY STAR New Homes	2,200	$ 3,002,604	34,658	$ 11,543	1.25	1,395	$ 2,246,164	19,337	$ 8,609	0.33
	Heating System Rebate	4,500	$ 789,360	35,868	$ 45,440	1.85	4,256	$ 897,475	35,183	$ 39,202	1.78
	Home Performance w/ ENERGY STAR	300	$ 328,250	9,617	$ 29,299	1.23	1	$ 70,993	19	$ 269	0.03
	Insulation Rebate	1,500	$ 529,900	28,210	$ 53,237	1.72	3,487	$ 1,050,186	45,558	$ 43,381	1.14
	School Education Kits	6,600	$ 163,273	14,315	$ 87,674	4.16	15,021	$ 330,491	12,081	$ 36,555	1.91
	Water Heating Rebate	1,250	$ 81,796	1,513	$ 18,502	1.16	1,667	$ 180,812	4,172	$ 23,075	0.92
Residential Segment Total		**36,350**	**$ 5,094,697**	**138,462**	**$ 27,178**	**1.67**	**100,340**	**$ 5,240,292**	**181,750**	**$ 34,683**	**1.28**

Both the overall electric and natural gas residential programs performed extremely well in the first year for the portfolio. The best performing programs included Home Lighting & Recycling, Energy Efficient Showerheads, School Education Kits, Heating System Rebates, Insulation Rebates, and Water Heater Rebates. Both portfolios exceeded energy savings goals while coming in slightly under budget.

The Home Lighting & Recycling Program led performance in the residential electric segment. Over 1.2 million bulbs were sold through retail partners and online sales. Significant efforts were made to more than double the 2008 program. Increased advertising, event marketing and a broader group of retail partners lead to the success. Major events that supported the program included the Lights Out Lunch in December and the Denver Broncos night game on Thanksgiving Day.

Due to a strong effort to identify and educate equipment contractors, the Heating System Rebate, Water Heater Rebate and Insulation Rebate Programs far exceeded program goals in 2009. By the

end of the year, hundreds of contractors were trained and supporting the program when they interacted with prospective customers. Our focus in the initial year was to build a strong contractor community, take advantage of their face-to-face interactions with interested customers, and develop awareness of energy efficiency and our rebates through advertising and community outreach.

Due to challenges with some of the programs, we increased participation in the Energy Efficient Showerhead Program to ensure the residential segment reached and exceeded the natural gas goal in 2009. Over 80,000 customers who have electric or gas water heaters received the free energy efficient showerheads. The potential for this program is great in the short-term due to the lack of activity by other Colorado organizations to promote and install energy efficient units in recent years.

Other programs had excellent years even if the energy savings targets were not met. The ENERGY STAR New Homes Program reached the electric goal but came about 5,000 Dth short of the gas goal. The Colorado new home construction market has significantly decreased in the past years due to the economy. In the first year, we had over 1,500 homes qualify for our program, which we believe amounts to over 30% of all new homes constructed in our service area in 2009.

The Home Energy Audit Program was below goal but built a strong awareness with customers when it was launched in late first quarter of 2009. Customer feedback and satisfaction with the program were extremely high. Over 90 percent of the customers elected to enroll in the high-end audit that provides the customer with a blower-door and infrared assessment of their house.

Residential Programs

Energy Efficient Showerheads

The Energy Efficient Showerheads Program provides a free energy efficient showerhead to Public Service's residential customers to help them save energy, water, and money. Qualifying Public Service customers receive a direct mail offer for a 1.5-gallon per minute showerhead. Customers accept the offer by mailing in the business reply card or calling the toll free number and are then mailed a showerhead and installation instructions free of charge.

Deviation from Goal

The program exceeded its filed goals for participation and natural gas savings. Energy savings per showerhead were reduced due to results from measurement and verification efforts. The program originally had 100% installation rates assumed in the program's technical assumptions. It was identified that for the 2009 program year, 67% was the verified installation rate.

Due to the underperformance of the Company's natural gas portfolio, the showerhead program increased its targets to aid in generating additional savings. The program was successful in reaching the increased targets.

Changes in 2009

60-Day Notice. Prior to launching this program in May 2009, Public Service agreed to re-evaluate the program design as part of the 2009/10 DSM Plan Settlement Agreement. As a result, the following improvements were implemented through a 60-Day Notice, implemented in July, 2009:

- The program will promote the use of low-flow showerheads with a flow rate of 1.5 gallons per minute rather than a showerhead with a flow rate of 2.0 gallons per minute.
- The program was modified to accommodate electric customers. We determined that approximately 15% of our customers use electricity to heat their water and 85% use natural gas, and therefore reflect this in our deemed savings technical assumptions. These changes result in an increase in savings of approximately 25% per showerhead.

ENERGY STAR New Homes

The ENERGY STAR New Homes Program has both natural gas and electric components that encourage homebuilders and homeowners to consider a "whole-house" approach to energy conservation. This approach combines energy saving construction methods with energy efficient appliances. Together they achieve significantly higher energy savings and provide the customer with lower energy bills, less maintenance concerns, higher resale value and a more comfortable home.

The ENERGY STAR New Homes Program provides incentives for homebuilders who construct energy efficient residential homes. Rebate amounts are based on the level of energy efficiency achieved in each home, which is measured by a Home Energy Rating (HERS) index. Additional builder incentives include the services of certified home Energy Raters. These Energy Raters provide consulting services to participating builders during construction, to help ensure homes meet Public Service's program requirements and Environmental Protection Agency's ENERGY STAR guidelines.

The electric part of the ENERGY STAR New Homes Program provides builders incentives totaling $110 when installing a qualifying ENERGY STAR dishwasher, clothes washer, refrigerator and 20 ENERGY STAR lighting fixtures or CFLs. Builders must install all of the above to receive the $110 rebate from Public Service. The gas part of the ENERGY STAR New Homes Program provides builders incentives from $350 to $2,000. Builders are free to mix and match efficient measures and installing practices in order to obtain their qualifying HERS index. Typical measures which could be selected by the builder include: high efficiency heating/cooling systems, high performing windows, increased insulation levels and advanced air sealing techniques.

In early 2009, Public Service issued a Request for Proposals and hired Residential Science Resources (RSR) as the program implementer. RSR is tasked with enrolling builders in the program and maintaining a pool of qualified raters. Raters are required to adhere to a standard scope of work established by Public Service and RSR, and in turn, are compensated by Public Service for each home enrolled. RSR collects critical site specific data from each rater during construction and provides monthly reporting to Public Service. This data is used to track homes enrolled in the program and those that meet the program requirements. This same data is used to calculate any rebates incentives earned as well energy impacts.

Deviation from Goal

The ENERGY STAR New Homes Program did well overall in 2009, given the down economy and depressed housing market, but did not pass the TRC Tests for gas or electric. New housing starts continued their downward swing in 2009 and tight credit made it difficult for builders to obtain construction loans. The Company was not able to meet its gas participation and impact goals; however, we greatly exceeded our electric participation and budget. Gas spending was significantly under budget due to the lower gas participants. Although the program produced electric savings, the types of equipment rebated caused energy (kWh consumption) reductions but coincident peak demand increases. This resulted in the program achieving a negative peak demand savings. On a positive note and perhaps a measure of program success, market penetration of ENERGY STAR qualified homes for Colorado increased significantly in 2009, from 19% in 2008 to over 26% in 2009 (source: Colorado Governor's Energy Office).

We have found that the incremental costs and other underlying assumptions used for this program are incorrect and does not accurately represent the homes that are participating in this program, which caused this program to fail cost effectiveness tests in 2009. We are re-working the technical assumptions and reassessing eligibility requirements for this program and plan to submit a 60-day notice soon that will be effective for calendar year 2010. We believe that this program will be cost effective in 2010 once these improvements are made.

Changes in 2009

May 1 Amendment. As filed in the May 1, 2009 Amendment, the program was updated to include the simplified rebate structure and increased rebate levels to builders as agreed to in the 2009/10 DSM Plan Settlement Agreement. These program improvements include:

- The rebate structure would be simplified and rebate levels increased. The minimum entry rebate level would increase from $200 to $350 and a simplified tiered structure with increasing rebate levels was added, giving builders greater incentive to achieve lower (better) HERS index scores.
- Public Service will pay Raters directly for the HERS rating services. Public Service agreed to pay a portion of the fee upfront, when the home is enrolled to assist the HERS rater with their cash flow. In addition, Public Service agreed to clearly explain to participating builders and homeowners, the full value of the rating consulting process.
- Public Service agreed to work the vendor selected through the RFP process (RSR), to ensure that multiple raters received the opportunity to work in the program. This would allow Rating organizations to maintain their current business relationship with their builders and offer additional consulting services when requested.
- It was agreed the M&V payment and activity budget is separate from the HERS incentives and activity budget. Public Service is required to perform M&V for this program. To minimize M&V costs, Public Service will use the Rater's inspection process and reporting activities to meet the program M&V requirements. Once this was further explained to the committee, the committee members were satisfied that this is a non-issue moving forward with the program.

60-Day Notice. A 60-Day Notice, implemented in September 2009, clarified the role and impacts of PV systems installed in new homes. The program does not include the impacts of a photovoltaic system (PV) or other renewable generation systems when calculating the HERS Index for a home. Rebates for PV systems are paid through the Solar Rewards® Program rather than the DSM programs. Accordingly, energy savings credit for PV systems is not taken under the DSM portfolio.

ENERGY STAR Retailer Incentive

The ENERGY STAR Retailer Incentive Program provides upstream rebates to retailers for the purchase of ENERGY STAR televisions and appliances (clothes washer, dishwasher, refrigerator, room air conditioners and ceiling fans). The objective of the program is to influence retailers to stock, merchandize and sell more ENERGY STAR units.

The ENERGY STAR Retailer was filed as a pilot program. In the filing, Public Service estimated sales of roughly 16,000 appliances and televisions. We found that the actual sales were substantially higher than what was estimated. Thus, we tried a new concept that would only count the sales above the baseline and provide incentives associated with those sales. This "lift" concept would reduce the number of units that would receive the rebates and more closely relate to the numbers that we filed.

We presented this concept with a handful of retailers and found that most retailers were not interested in the program design. They found the concept too complex to understand were reluctant to provide historical sales data and had difficulty segmenting data by ENERGY STAR units. Retailers were familiar with how compact fluorescent lighting mark-down incentive programs operated and were somewhat resistant to changing to a new concept that demanded more from them.

We did find one retailer that was willing to implement the "lift" concept, Best Buy. We implemented the program with Best Buy and provided rebates, advertising, sales training and merchandising assistance. We found that Best Buy increased their sales substantially for televisions. They made less significant increases for appliances. Last year, Best Buy participated in three incentive programs nationwide. These three programs influenced them to change their stocking practices for televisions and upgrade to all ENERGY STAR units.

Deviation from Goal

The ENERGY STAR Retailer Incentive Program achieved substantially less than the filed goals and did not pass the benefit-cost analysis test. This can be attributed to a lack of participation and ability for retailers to get behind the "lift" concept. Public Service will look at new concepts that will provide more saving potential for 2010.

Changes in 2009

There were no changes in 2009.

Evaporative Cooling Rebate

The Evaporative Cooling Rebate Program provides a cash rebate to electric customers who purchase and permanently install high-efficiency evaporative cooling equipment for residential use in Colorado. Customers receive cash rebates for qualifying equipment. This is a tiered rebate program rebating $200 (or the cost of the unit, which ever is less) for Tier 1 units with a CFM of 2,500 or greater, and $500 for Tier 2 units with a minimum media saturation effectiveness of 85%, a remote thermostat and a periodic purge water control.

Deviation from Goal

Participation in this program is weather sensitive, and cooler then normal summer temperatures resulted in fewer participants than expected in 2009. Increased marketing efforts were launched to raise program participation, achieving 70% of participant goals.

Changes in 2009

Customers were required to provide Public Service with information on prior, if any, cooling units the new evaporative cooler was replacing. Customers were to select one of the following: Tier 1 unit, Tier 2 unit replacing a Tier 1 unit, Tier 2 unit replacing nothing, or Tier 2 unit replacing a central air conditioner. Requesting this information gave us a better understanding of the market, and allowed us to track savings more accurately.

60-Day Notice. An outcome of the Colorado 2009/10 DSM Settlement Agreement increased the Evaporative Cooling Rebate Program budget in 2009 to add a whole house evaporative cooling (Tier 3) component to the program. This change was implemented in September, 2009 through a 60-Day Notice. This Tier 3 component would provide a $1,000 cash rebate to builders. We did not process any of these rebates in 2009.

Heating System Rebate

Public Service's Heating System Rebate Program rewards customers with rebates when they choose a high-efficiency furnace or boiler. The program's customer benefits include the offset of initial equipment costs, the long-term natural gas savings during the lifetime of the equipment and the increased home comfort. The program's market transformation strategy is moving customer behavior toward the purchase of the highest efficiency heating products rather than federal minimum standard.

The majority of Colorado customers during the first year of the program received furnace rebates through the highest tier provided. While the boiler rebate is a single tier, customers who installed boilers submitted applications that reflected very high efficiency boilers.

Trade relations are the strongest promotion channel for this program. Frequent communications with trade partners and meetings to gain their feedback all contributed toward achieving all program goals in 2009. All planned customer and trade marketing tactics were implemented in addition to seasonal promotions. A spring trade promotion kicked off the new program by building significant awareness through a double-rebate offer. During that time, the trade partners were encouraged to

upsell high-efficiency equipment at a time when many customers have recent memory of their winter heating bills. Tax refund season is another strong message, encouraging customers to reinvest in the comfort and savings of their homes. A second trade promotion held in the fall encouraged trade partners to submit all heating rebate applications before mid-October to receive a cash incentive.

Deviation from Goal

The Heating System Rebate Program achieved its energy savings goals in 2009 due to customers choosing high efficiency equipment. The program came close to achieving its participant goal. The budget surpassed goal in an effort to create and maintain awareness throughout the year.

Changes in 2009

The program's equipment verification resource, Gas Appliance Manufacturers Association (GAMA), rolled into the Air Conditioning, Heating and Refrigeration Institution (AHRI) online site. The rebate processors access the GAMA resource through ahridirectory.net.

High Efficiency Air Conditioning

The High Efficiency Air Conditioning Program comprehensively addresses energy efficiency opportunities related to central air conditioners and air-source heat pumps. This program was launched in May 2009 and consists of the three major components:

- ***Equipment Rebates*** – Central air conditioners and air-source heat pumps ranging from 14.5 to 16 SEER or greater are eligible for a rebate. Rebates range from $250-$500. The goal is to encourage consumers to purchase units that meet or exceed the ENERGY STAR efficiency standard of 14.5 SEER. Equipment must be Air Conditioning and Refrigeration Institute Performance Certified at standard rating conditions and have a thermostatic expansion valve (TXV), as this improves the efficiency by matching the flow of liquid refrigerant to the cooling load of the home.
- ***Quality Installation*** – This component is the cornerstone of the program since the other two components are built with the quality installation process in mind. This process is based on standards developed by the Air Conditioning Contractors of America (ACCA) which dictate the steps a contractor must take to ensure a truly quality installation. Contractors who meet the quality installation requirements are eligible to receive a $100 incentive from Public Service.
- ***Tune-Ups*** – The Tune-up component includes rebates for repair, service work, and related improvements to central air conditioners and air-source heat pumps that result in improvements in cooling efficiency. The Tune-up component is still in development and is expected to launch in 2010.

The High Efficiency Air Conditioning Program strived toward customer and trade partner awareness in 2009. Prospective trade partners were trained in May at the time the program launched. The program was launched late in the spring because Public Service was working with the

Energy Efficiency Business Coalition to develop the program, per the Colorado 2009/10 DSM Plan Settlement Agreement.

Deviation from Goal

The program did not meet its goals and did not achieve an MTRC ratio greater than one in 2009. The program's late start significantly impacted the time to attract and train contractors and educate customers about the new program. Only 119 rebates were issued in 2009. The majority of the applications were processed in November/December 2009. While strong trade partnerships were built by year end, a stressed economy, cooler than average summer temperatures, and discontinued equipment in the Air Conditioning, Heating and Refrigeration Institute (AHRI) all contributed to the low participation. The budget spend was managed according to the energy saved in addition to the cost of launching a new program to ensure customer awareness. All planned marketing tactics were implemented, including print, outdoor and online advertising, trade events and training to ensure the success of this program in future years.

Changes in 2009

May 1 Amendment. The High Efficiency Air Conditioning Program was added through the May 1 Amendment.

60-Day Notice. As an outcome of the 2009/10 DSM Plan Settlement Agreement, in September 2009, Public Service added a Residential Air Conditioning Tune-Up Pilot to the High Efficiency Air Conditioning Program through a 60-Day Notice. The pilot tested the process of providing enhanced air conditioning tune-ups through HVAC contractors, using sophisticated testing and diagnostic equipment to measure performance of the air conditioning equipment before and after the tune-ups. The team analyzed results of the pilot and determined that a new pilot design should be tested, as the proposed pilot was not cost effective as currently designed. The new pilot design will be analyzed in 2010.

Other modifications (not requiring a 60-Day Notice): While not required, the program now strongly encourages participating trade partners to submit an AHRI (Air Conditioning, Heating and Refrigeration Institute) date-stamped certificate to ensure verification of the coil and condenser match at the time of installation. This suggestion is the result of the AHRI site dynamics the program has experienced during the past two years and to the significant changes it undergoes with little notice to users. During third and fourth quarters, AHRI certificates were required to prove coil and condenser matches only for that equipment that was delisted on AHRI as of July 15.

In late 2009, the program changed a policy to start returning the majority of incomplete applications to the contractor rather than the customer. Contractors prefer this process, and, as such, the program realized improvements with turnaround time and increased satisfaction among customers and trade partners.

Home Lighting & Recycling

The Home Lighting & Recycling Program offers an easy, low cost way for customers to save energy and money. It provides two ways for customers to purchase energy saving compact fluorescent lights (CFLs):

- Mail Order: Customers can purchase a wide variety of CFLs via mail, telephone or Internet. There are 20 different models available for purchase.
- Retail Store Instant Rebates: Public Service provides limited-time instant rebates at participating retailers for the purchase of CFLs. Public Service works with retailers and manufacturers to buy down the price of the bulbs to $0.99 each.

Public Service also participates in the national ENERGY STAR Change-a-Light, Change-the-World campaign and leverages the national public relations effort.

In addition, Public Service encourages customers to recycle spent CFLs. CFLs contain small amounts of mercury that are harmful to the environment. Public Service provides free CFL recycling to customers. They can conveniently recycle bulbs at no charge through Ace Hardware stores.

Deviation from Goal

With the downturn in the economy, CFLs are a low cost way for customers to reduce their energy bills. Public Service was able to increase the number of CFLs sold in 2009 to help customers save money during this challenging economic time. The Company expanded the participating retailers and advertising; customers responded by purchasing over 1.2 million CFLs. This exceeded budget and savings goal, but the program still remains extremely cost-effective. Public Service was able to achieve economies of scale in the budget by implementing the Colorado program at the same time as the Minnesota and New Mexico programs.

Changes in 2009

There were no changes in 2009.

Home Performance with ENERGY STAR

The Home Performance with ENERGY STAR (HPwES) Program is a comprehensive, "whole house" retrofit program only available to Public Service residential combination gas and electric customers. Customers residing in multi-unit complexes greater then four do not qualify. This program is designed to give cash rebates to customers for implementation of measures identified during the Home Energy Audit.

Participants have a limited amount of time from sign up to implement three required measures (attic insulation, air sealing/weatherization, and installation of 20 compact fluorescent bulbs) and an additional two measures from a list of 10 gas and electric savings options. Optional measures include installation of new heating equipment, wall insulation, ENERGY STAR appliances, etc. Upon the customer's completion of the program requirements, a post improvement inspection is completed.

Public Service issued an RFP and as a result, hired third-party program implementer Lightly Treading, Inc., for this program and the Home Energy Audit Program. Lightly Treading is responsible for conducting the in-home post improvement inspection and managing the program tracking, administration, and management of the auditor team.

Deviation from Goal

Overall, the program did not achieve its goals or pass the benefit-cost analysis test. The program had a very challenging year because of the high cost to participate, the long time period given to customers to make the improvements, and the overall economic conditions.

At the end of 2009, we had over 250 customers enrolled in this program, with one customer who completed the program requirements by year end. Our double rebate promotional offer that ended in December was a primary reason for increased enrollments in the program.

While we did not hit our goals, we did make great strides educating our customers about the benefits in the program and why it is great for those looking to stay in their home and make multiple improvements. The program was marketed through advertising, bill inserts, direct mail, event sponsorship, cross-marketing, auditor incentives, and rebate bonuses.

In 2009, an auditor incentive was offered to increase the number of sign ups and completions in the Home Performance with ENERGY STAR Program. Auditors received a cash incentive for every home they signed up. Increased training of HVAC contractors to proactively market to end customers to receive an energy audit will help increase participation of this program.

Changes in 2009

60-Day Notices: Prior to launching this program in March 2009, Public Service agreed to re-evaluate the program design. A group comprised of interested parties and Public Service representatives, formed a committee to conduct the re-evaluation. As a result of the work done by this committee, several program improvements were implemented in June 2009 through a 60-Day Notice, which include:

- Allowing customers to complete the program within one year instead of six months, requiring a blower door test be conducted during the initial audit, and allowing for measurement of natural air changes per hour.
- Allowing auditors, or an auditor's company, to provide improvement installation services in addition to providing auditing services to the customer as long as the customer is aware of other installation contractors available.

Additional changes were implemented in November 2009 through a second 60-Day Notice, which include:

- Regarding the required Attic Insulation/Bypass Sealing and Air Sealing/Weather-Stripping program measures, we limited which pre-existing improvements customers may count towards the HPwES Program requirements.

- Since attic insulation/bypass sealing and air sealing/weather-stripping are required program improvements, if the homeowner has already installed either of these improvements to the level required at program completion (pre-existing attic insulation at R-40 and/or air leakage rate less than 0.35 natural air changes per hour), they would be *ineligible* for program participation. However, if the homeowner has performed some work, but not to final level required by the program, then they would still be eligible.
- Modify the "Optional Measures" policy to allow customers to count only one preexisting improvement towards their required two Optional Measures. The original policy stated that customers must install a minimum of two measures from the list of optional measures, both of which could be pre-existing improvements.
- 84% AFUE Efficient Boiler was added to the list of Optional Measures to increase market appeal.
- Allow electric-only space-heating customers to participate. These participants must perform the same required improvements as gas heated customers. Electric-only space-heating customers will be eligible for the following Optional Measures: wall insulation, ENERGY STAR primary refrigerator replacement, dishwashers, and clothes washers.
- Align the insulation requirements in the HPwES Program with those of the Insulation Rebates Program. Through 60-Day Notice, the Insulation Rebates Program was modified to allow customers with existing insulation above R-19 to participate. This program change will apply to the HPwES Program as well, with the following participation requirements:
    - Homes with existing attic insulation less than or equal to R-19 must increase their insulation up to R-value of 40 or above;
    - Homes with existing attic insulation greater than R-19, but less than R-40, must increase their insulation by an R-value of 25;
    - Homes with existing attic insulation of R-40 or greater will be ineligible to participate;
    - Wall insulation will only be eligible when it can be shown that the wall cavity is only partially filled.
- Hours of Operation - We refined our gas heating equipment calculations across relevant programs, and changed the calculation of hours of operation for the HPwES gas heating equipment from a seasonal average to the equivalent full-load hours. This calculation is not used in determining gas savings, and has no effect on savings.
- Air Leakage Test - Public Service changed the initial test for air leakage from a 0.6 natural air changes or higher with a 0.15 air change reduction, to a flexible starting air leakage rate, but retaining the required improvement of 0.15 tested air changes per hour. Participants found the original requirement too stringent.
- Revisions to Calculation Methodology – Public Service changed the calculation methodology for implemented measures to incorporate additional actual data gathered from each participant. This data will replace previously assumed average population values. This change will increase the accuracy of the energy savings calculations.

Insulation Rebate

The Insulation Rebate Program was a new program in 2009 and was available to all residential gas and electric customers for installing insulation in their existing single-family home or one-to-four unit property. Rebates were available for the following types of qualifying insulation installations:

- Attic insulation and bypass sealing,
- Wall insulation, and/or
- Air sealing and weather-stripping.

Customers may use any licensed, bonded and insured insulation contractor to qualify for the rebate.

Deviation from Goal

This program succeeded in reaching its gas energy savings goals, but did not achieve its electric goals or pass the cost-benefit analysis test for electric. This TRC is lower than anticipated because the mix of products rebated were different than what we estimated in the 2009/10 DSM Plan. Far more attic insulations were performed and less wall insulation jobs were done.

Due to low customer response rates through the third quarter, the Insulation Rebate Program announced a promotion in the fourth quarter offering double rebates. This promotion proved to be more successful than planned and allowed the program to surpass its participation and savings goals by the end of the year. Going forward, we are working to improve best practices for insulation contractors to improve air sealing tactics.

Changes in 2009

60-Day Notice. Through a 60-Day Notice, implemented in September 2009, we expanded the program to allow electrically heated customers to participate. The Notice also changed the eligibility requirements for pre- and post-R-values which opened up the program to more customers.

Refrigerator Recycling

The Refrigerator Recycling Program strives to decrease the number of inefficient secondary refrigerators in general use, and by doing so, deliver electric energy savings and peak demand reduction. The program is designed to reduce energy usage by allowing customers to dispose of their operable, inefficient secondary refrigerators in an environmentally safe and compliant manner. Customers receive a $35 incentive and free pick up and disposal services to recycle the secondary refrigerator.

Deviation from Goal

This program was the last residential program to launch in June of 2009. It failed to reach its goal during its seven months of being available to the public. Components that contributed to this low performance included the late start date and the lack of constant, widespread marketing efforts.

The marketing and advertising efforts were ineffective and brought in minimal customer response. In 2010, we plan on utilizing our contractor's knowledge of the industry and customer base by collaborating on all marketing and advertising efforts for this program.

Changes in 2009

There were no changes in 2009

School Education Kits

The School Education Kits Program is a turnkey program that combines a set of classroom activities with projects in the home to install energy efficiency and water conservation products. The program is targeted at sixth grade students in the Colorado service territory. Our third-party contractor, Resource Action Programs (RAP), fully implements the School Education Kits Program, including recruiting and training teachers, providing all materials, and tracking participation by the students and teachers. Energy Savings is based on the number of measures (aerators, showerheads, CFLs, etc) that are installed in the homes of the students. We base these savings on install rates that are received through the parent survey results.

Deviation from Goal

We failed to reach our savings goal for both the electric and gas components of this program. The goals were based on 100% install rates. Measurement and verification survey results showed lower install rates than were anticipated. Efforts will be made in 2010 to increase installation rates by improved teacher and student communications.

Changes in 2009

60-Day Notice. Based on the 2009/10 Colorado DSM Settlement Agreement, through a 60-Day Notice implemented in July 2009, Public Service changed from the originally filed 2.0 gpm showerhead to a more energy efficient 1.5 gpm showerhead. In addition, the participation goal was increased to 15,000 electric and natural gas participants.

Water Heating Rebate

The Water Heater Rebate Program uses rebates to encourage residential customers to purchase energy efficient water heating equipment. Rebates are available for energy efficient storage and tankless water heaters. By providing these incentives, participating customers reduce their natural gas usage and long-term operating costs.

All planned customer and trade marketing tactics were implemented in addition to seasonal promotions. A spring trade promotion kicked off the program by offering a double rebate. Trade partners were encouraged to up-sell high-efficiency equipment at that time, along with the message that any spring tax refund is wisely spent on home energy improvements.

Deviation from Goal

The Water Heating Rebate Program exceeded expectations and achieved participant and energy savings goals in 2009. Public Service surpassed the budget goal in an effort to build awareness and

also to pay the numerous approved rebate applications. Customer preference for tankless water heaters, the highest rebate tier, largely affected the program budget. The combination of the added administrative costs, coupled with rebating many more tankless water heaters than expected, resulted in the program not passing the gas cost-benefit analysis test. In 2010 we are considering a consumer awareness campaign to ensure the success of this program.

Changes in 2009

The program's equipment verification resource, Gas Appliance Manufacturers Association (GAMA), rolled into the Air Conditioning, Heating and Refrigeration Institution (AHRI) online site. The program continues to use the GAMA resource but now accesses it through ahridirectory.net.

Per program specifications, we require that units be verified through AHRI, GAMA, or ENERGY STAR, but not 100% of the units can be verified on these sites. To accommodate units that cannot be qualified through the above channels, Public Service changed its policy to allow verification by our internal energy efficiency engineers.

Saver's Switch®

Saver's Switch is an integral part of Public Service's load management program. As of the end of 2009, we had more than 114,000 residential Colorado customers enrolled in the program. The Saver's Switch Program offers bill credits as an incentive for residential customers with central air conditioners who allow the Company to control operation of their air conditioners on hot summer days when the system is approaching its peak. Residential customers receive a $40 annual discount on their October bill each year they participate. Saver's Switch helps to reduce the impact of escalating demand and price for peak electricity.

When a customer enrolls in the program, we install a small load control received on or near their central air conditioner. On a control day, a signal is sent to interrupt the air conditioning load, typically between the hours of 2 p.m to 7 p.m. The program deploys switches with varying load control strategies. Switches installed prior to 2004 are cycled 15 minutes out of every 30 minutes (a 50% cycling strategy) during the control period. Switches installed beginning in 2004 utilize an "adaptive algorithm" cycling strategy. These switches are designed to "learn" how a customer's air conditioning is being operated in order to achieve a 50% reduction in load. The results have been greater load reduction per unit. Approximately 88% of the 119,000 switches in the field (some customers have more than one AC making the switch count greater than the customer count) use the adaptive algorithm strategy. Control periods for central air conditioners occur an average of five to fifteen times per year each summer. With the unseasonably mild summer, we only had two control days in 2009.

Deviations from Goal in 2009

Public Service exceeded the overall goal, completing a total of 20,427 new installations. Program expenditures were slightly below budget at $12,106,161.

Changes in 2009

In 2009, the incentive participants receive was increased from $25 to $40.

Low-Income Segment

The Low-Income Segment consists of the Single-Family Weatherization, Multi-Family Weatherization, Easy Savings Energy Kits, and Non-Profit Energy Efficiency Programs. These programs analyze gas and electric consumption for low-income customers and provide them with products and services designed to assist them in lowering their energy bills.

Table 14a: Low-Income Segment – Electric Programs (Budget to Actual)

		Budget					Actual				
	2009	Electric Participants	Electric Budget	Net Gen. kW	Net Gen. kWh	Modified TRC	Electric Participants	Electric Budget	Net Gen. kW	Net Gen. kWh	Modified TRC
Low-Income Segment											
	Easy Savings Energy Kits	20,000	$ 591,185	163	2,472,121	2.39	26,719	$ 473,188	491	8,201,556	10.80
	Multi-Family Weatherization	518	$ 106,432	28	323,820	2.41	857	$ 167,932	79	180,168	1.16
	Non-Profit Energy Efficiency	322	$ 68,991	17	201,875	2.28	22,623	$ 132,591	95	1,200,617	2.82
	Single-Family Weatherization	1,958	$ 749,466	175	2,135,695	2.54	1,266	$ 859,797	125	1,673,535	1.62
Low-Income Segment Total		**22,798**	**$1,516,075**	**384**	**5,133,511**	**2.45**	**51,465**	**$1,633,508**	**791**	**11,255,876**	**4.51**

Table 14b: Low-Income Segment – Gas Programs (Budget to Actual)

	2009	Budget					Actual				
Low-Income Segment		Gas Participants	Gas Budget	Net Annual Dth Savings	Annual Dth/$M	Modified TRC	Gas Participants	Gas Budget	Net Annual Dth Savings	Annual Dth/$M	Modified TRC
	Easy Savings Energy Kits	20,000	$ 591,599	36,666	61,978	3.65	36,094	$ 484,459	50,217	$ 103,656	5.66
	Multi-Family Weatherization	518	$ 292,290	6,298	21,547	1.42	5,255	$ 408,841	25,668	$ 62,783	4.75
	Non-Profit Energy Efficiency	322	$ 393,258	4,064	10,333	1.23	10	$ 176,549	945	$ 5,353	0.68
	Single-Family Weatherization	2,946	$ 2,086,355	53,551	25,667	1.36	2,274	$ 1,843,403	24,954	$ 13,537	1.36
Low-Income Segment Total		**23,786**	**$3,363,503**	**100,579**	**29,903**	**1.60**	**43,633**	**$2,913,251**	**101,785**	**$ 34,939**	**2.36**

The overall low-income electric portfolio far exceeded goal while the natural gas portfolio underperformed primarily due to the Single-Family Weatherization Program. The Single-Family Weatherization Program did not reach either electric or natural gas goal in 2009. This is primarily due to delays finalizing the contract with our third-party implementation firm. In addition, several process improvements were identified and put into place in late 2009 that should lead to stronger performance in 2010.

The Multi-Family Weatherization Program far exceeded both goals due to a larger number of qualifying projects identified by one of our program implementation firms, Energy Outreach Colorado.

The Easy Savings Energy Kits Program exceeded participation and energy savings goal for both electric and natural gas portfolios. Participation was increased well above goal due to lower installation rates of the individual measures than planned in the 2009-10 DSM Plan. We were able to achieve excellent energy savings while coming in significantly below budget due to our contracted cost per kit. The projected cost was much higher in the 2009-10 DSM Plan, which was completed prior to the program being bid out to kit contractors.

The Non-Profit Energy Efficiency Program exceeded electric but fell short of natural gas goals in 2009. The program is very similar to most business energy efficiency programs with respect to the sales cycle for projects. There is a long lead-time to identify and complete a project. As a result, participation was limited in the first year. We expect participation to increase in 2010 and beyond as more projects are identified and entered into the program pipeline.

Low-Income Programs

Easy Savings Energy Kits

The Easy Savings Energy Kits Program provides a bundle of home energy efficiency measures in a kit distributed to low-income customers. These kits offer electricity and natural gas savings, as well as customer education to help lower customer bills and improve the comfort and safety of their dwellings. Customers that can prove income eligibility, by applying for federal Low-Income Home Energy Assistance Program (LIHEAP) funding or other forms of energy assistance (such as that provided by Energy Outreach of Colorado (EOC)), are eligible to receive a kit.

Deviation from Goal

The Easy Savings Energy Kits Program performed well in 2009, exceeding its savings goals while remaining under budget. Gas and electric year-end budgets were not overspent due to a lower bid price from kit contractor than originally budgeted in the 2009/10 DSM Plan.

Changes in 2009

The filed distribution method was to distribute the kits through weatherization agencies. We found that storage space at the agencies was limited; therefore, Public Service tested two new delivery methods. The methods chosen were direct mail distribution (mailing kits to customers that qualified) and a direct mail campaign offering a kit if the customer returned a pre-paid/pre-addressed postcard to the vendor.

60-Day Notice. In compliance with the 2009/10 DSM Plan Settlement Agreement, through a 60-Day Notice, in July 2009 Public Service implemented the program with a 1.5 gpm showerhead to achieve greater savings and to mirror the Energy Efficient Showerhead Program. An electric savings calculation was added for units installed in homes with electrically heated hot water and the calculation of hot water was updated based on a clarification of DOE reference data for hot water. A 1.0 gpm sink faucet aerator was added to the kits to improve savings as well. Hot water tank efficiencies were separated into the minimum standards for electric- and gas-fired units rather than a combined efficiency, improving the overall savings. In addition, the operation and maintenance water savings from low-flow showerheads and aerators was added. Public Service also changed the quantity of compact fluorescent bulbs in the kits because bid prices allowed more items to be included. Kits included four 13-watt bulbs and two 20-watt bulbs.

Multi-Family Weatherization

The Multi-Family Weatherization Program offers natural gas and electric efficiency measures to low-income multi-family buildings. These buildings have common areas, greater square footage, and more appliances and potential measures then the Single-Family Weatherization Program.

Public Service issued an RFP in early 2009, awarding the program to both the Governor's Energy Office (GEO) and EOC. Public Service funds supplemented federal weatherization grants to produce incremental, cost-effective gas and electric savings. Each project submitted went through a custom analysis by Public Service efficiency engineers to determine cost-effectiveness.

Deviation from Goal

The Multi-Family Weatherization Program exceeded gas and electric savings goals, while staying under the electric budget. Promotions and applications for the program were managed by the third-party program implementer. All projects received and completed in 2009 were submitted through Energy Outreach Colorado.

Changes in 2009

There were no changes in 2009.

Non-Profit Energy Efficiency

The Non-Profit Energy Efficiency Program provides funding for energy efficiency retrofit improvements to qualified non-profit organizations within the Company's service territory. The program's focus is on helping organizations that serve low-income individuals, such as shelters, safe houses, and residential treatment centers for those who are on the brink of homelessness.

Public Service contracted with EOC to support the Non-Profit Energy Efficiency initiative. EOC refers to these funds as NEEP dollars (Non-Profit Energy Efficiency Program). EOC recruited facilities and managed applications. Each project submitted went through a custom analysis by Public Service efficiency engineers to determine cost-effectiveness.

Deviation from Goal

The Non-Profit Energy Efficiency Program exceeded the electric savings goals and spending. The gas savings goals were not met and the gas cost-effectiveness test was not passed. This was due to less participation than anticipated. Some challenges were experienced in the first year of the program. The engineering approval process to review and approve projects has been refinement to increase the responsiveness as project opportunities developed which will work to improve this program in the future.

Changes in 2009

There were no changes in 2009.

Single-Family Weatherization

The Single-Family Weatherization Program offers natural gas and electric efficiency measures to low-income single-family households. Depending on the needs of the home, customers will receive one or more of the following services:

- Furnace Efficiency Upgrades
- Wall Insulation
- Ceiling Insulation
- Refrigerator Replacements
- Compact Fluorescent Bulbs

In addition to these measures, a major focus of the program is customer education on ways to reduce energy use in the home and to make smart energy choices. Low-income auditors will provide educational materials, historical energy usage information, and bill analysis to these customers during the weatherization process.

The Single-Family Weatherization Program is run in partnership with the Governor's Energy Office. Funds supplement federal weatherization grants to produce incremental, cost-effective gas and electric savings.

Deviation from Goal

Savings goals were not met for this program due to a delay in setting up the contract with the GEO, pushing program launch into the third quarter of the year. In addition, there were fewer gas opportunities on average per home than anticipated in the 2009/10 DSM Plan. GEO and Public Service implemented program and process improvements in late 2009 to increase timely participation in 2010.

Changes in 2009

60-Day Notice. Public Service revised the technical assumptions in the Single-Family Weatherization Program, through a 60-Day Notice in September 2009, to allow customers with electrically heated homes to participate in the program, per the CO DSM Settlement Agreement. The energy savings calculation methodology did not changed, but a portion of the savings were allocated to electric conservation. A split of 93% gas and 7% electric was used which represents the percentage of gas and electrically heated homes in Colorado.

Indirect Segment

The Indirect Segment includes programs that support the overall Plan but do not themselves directly produce energy or demand savings. These programs are not independently evaluated for cost-effectiveness, but their costs are included in the overall portfolio cost-effectiveness evaluations. This segment has two program areas: Education/Market Transformation and Planning and Research. Within the Education/Market Transformation area, the Company offered five customer-facing programs, including: Business Energy Analysis, Customer Behavioral Change – Business, Customer Behavioral Change – Residential, Residential Home Energy Audits, and In-Home Smart Device Pilot. Within the Planning and Research area, Public Service operated four internal programs: DSM Market Research, DSM Planning & Administration, DSM Product Development, and Evaluation, Measurement & Verification.

The Indirect Segment does not have energy and demand savings goals. The Segment's budget consists primarily of labor, educational material, and study costs. Most studies are conducted by outside experts, generally selected through a competitive bid. Table 14 shows the actual program expenditures as compared to budgeted spend for 2009.

Table 15a: Indirect Segment – Electric Programs (Budget to Actual)

		Budget		Actual	
	2009	Electric Participants	Electric Budget	Electric Participants	Electric Budget
Indirect Segment					
	Education/Market Transformation				
	Business Energy Analysis	400	$ 697,191	-	$ 1,111,570
	Customer Behavioral Change - Business	1,385	$ 162,968	1,400	$ 144,495
	Customer Behavioral Change - Residential	30,000	$ 882,428	51,218	$ 287,788
	Residential Home Energy Audit	7,176	$ 654,672	23,037	$ 418,815
	In-Home Smart Device Pilot			51,218	$ 1,042,700
	Education/Market Transformation Subtotal	**38,961**	**$2,397,259**	**126,873**	**$3,005,368**
	Planning and Research				
	DSM Market Research		$ 1,427,266		$ 706,297
	DSM Planning & Administration		$ 293,496		$ 261,316
	DSM Product Development		$ 673,560		$ 218,930
	Measurement & Verification		$ 739,640		$ 644,461
	Planning and Research Subtotal		**$3,133,962**		**$1,831,004**
Indirect Segment Total		**38,961**	**$5,531,221**	**126,873**	**$4,836,372**

Table 15b: Indirect Segment – Gas Programs (Budget to Actual)

		Budget		Actual	
	2009	Gas Participants	Gas Budget	Gas Participants	Gas Budget
Indirect Segment					
	Education/Market Transformation				
	Business Energy Analysis	100	$ 155,262	-	$ 348,328
	Customer Behavioral Change - Business	593	$ 70,644	937	$ 136,275
	Customer Behavioral Change - Residential	30,000	$ 920,287	51,219	$ 994,908
	Residential Home Energy Audit	7,774	$ 710,484	24,418	$ 498,318
	Education/Market Transformation Subtotal	**38,467**	**$1,856,677**	**76,574**	**$1,977,830**
	Planning and Research				
	DSM Market Research		$ 587,266		$ 345,102
	DSM Planning & Administration		$ 178,000		$ 99,610
	DSM Product Development		$ 204,440		$ 133,359
	Evaluation				$ 97,879
	Measurement & Verification		$ 134,360		$ 9,812
	Planning and Research Subtotal		**$1,104,066**		**$ 685,762**
Indirect Segment Total		**38,467**	**$2,960,743**	**76,574**	**$2,663,591**

Education/Market Transformation and Planning

Energy Analysis Program

The Energy Analysis Program is an indirect impact program that helps Public Service achieves its DSM goals by offering Colorado business customers' analysis services that identify energy-saving opportunities. The goal of this program is to provide a method for business customers to learn how their businesses uses energy today and to identify measures that will help them save energy and reduce operating costs in the future. This service focuses on a customer's core energy-efficiency opportunities.

Public Service offers the following analyses:

- **Online energy assessment** – Online tool that can be used by any size customer at no cost by accessing the tool through www.xcelenergy.com
- **On-site energy assessment** – Small Business customers (<25,000 sq. ft.) pay $200, Large C&I customers (> or =25,000) typically pay $300[8]
- **Engineering assistance study** – Public Service will fund up to 50% of the study cost, not to exceed $25,000, depending upon the energy savings potential

The program is often the first step in providing actionable information to assist customers in reducing their electric and/or gas energy consumption. The data collected through this program can provide many conservation opportunities for the customer and Public Service. Customers who participate in any of the analyses listed above will receive a written report they can use as a basis for

[8] For projects greater than 150,000 ft^2, we typically charge $600 and reserve the right to adjust the charge depending on the size and configuration of the facility.

making energy decisions. This includes information on Public Service rebate programs in which they could be eligible for additional funds if the customer decides to install measures.

Deviation from Goal

The program exceeded the participation goal by a significant amount in 2009. This was primarily due to a very successful email campaign run at the end of 2008 to build pipeline for the program and the fact that customers are looking for more ways to save costs during the economic downturn. Due to the program exceeding participation goals, we also exceeded budget expenditures. The management team decided to continue with the energy assessments even after exceeding goal due to the support this provided for the rebate programs.

Changes in 2009

In the fourth quarter of 2009, it became apparent that several large communities were interested in implementing audit type programs due to the influx of expected federal stimulus funds for energy efficiency related projects. We began coordinating with these communities so that they could utilize our program and not build this type of program from scratch. This coordination effort is continuing in 2010. No other major changes occurred to the program in 2009.

Customer Behavioral Change Programs

Customer Behavioral Change – Business

This new market transformation program was launched in 2009, and targeted all Colorado natural gas and electric business customers. The initial goal of the Customer Behavior Change Program was to improve public knowledge concerning the benefits of energy efficiency and conservation. We view this as the initial phase of a long-term process of creating educated, engaged customers who are ready to act on energy efficiency opportunities.

Because this segment is made up of a wide range of business types, Public Service employed a variety of resources and communications channels to communicate energy efficiency and conservation. The strategy deployed encompassed awareness messaging and activities. In the initial implementation of the program, primary emphasis was placed on:

- Community-based events, such as the Sustainable Opportunities Summit;
- Utilizing mass market advertising such as radio, print, and interactive to create awareness in energy efficiency;
- Online messaging through targeted websites;
- Conservation messaging through Public Service's newsletter to business customers;
- Conducting free energy efficiency workshops and distribution of Smart Energy Employee materials

Deviations from Goal

Because this is an indirect program, the goals are measured in participants rather than direct electric or natural gas savings. Specifically in 2009, the goal was to reach 1,978 residential participants. By year end we were actually able to have authentic interactions with more than 2,300 participants. As it turned out, we interacted with over 1,800 participants just through readership of the newsletter to business customers called "Energy Solutions". Additional participation came through all the other communication channels referenced above.

Changes in 2009

Because this program was new in 2009, there were no changes.

Customer Behavioral Change – Residential

This new market transformation program was launched in 2009, and targeted all Colorado natural gas and electric residential customers. The initial goal of the Customer Behavior Change Program was to improve public knowledge concerning the benefits of energy efficiency and conservation. We view this as the initial phase of a long-term process of creating educated, engaged customers who are ready to act on energy efficiency opportunities.

Because the residential segment is demographically varied, Public Service employed a variety of resources and communications channels to communicate energy efficiency and conservation. The strategy deployed encompassed awareness messaging and activities. In the initial implementation of the program, primary emphasis was placed on:

- Community-based events, such as home shows and conservation events;
- Utilizing mass market advertising such as radio, print, and interactive to create awareness in energy efficiency;
- Online messaging through targeted websites;
- Conservation messaging through Public Service's newsletter to residential customers;
- Publication of reference education materials;
- Conducting free energy efficiency workshops

Deviations from Goal

Because this is an indirect program, the goals are measured in participants rather than direct electric or natural gas savings. Specifically in 2009, the goal was to reach 60,000 residential participants. By year end we were actually able to have authentic interactions with more than 102,000 participants. As it turned out, we interacted with over 60,000 participants just at community-based events we attended, such as the Colorado Home & Garden Show, Cherry Creek Sneak, Boulder Creek Festival, Taste of Ft. Collins, etc. Additional participation came through all the other communication channels referenced above.

Changes in 2009

There were no changes to this program in 2009.

Home Energy Audit

The Home Energy Audit Program provides energy audits to Public Service natural gas and/or electric customers. This program is designed to improve energy savings in residential homes by influencing customer behavior through conservation education, and implementation of conservation efforts in the home and participate in other efficiency programs offered by Public Service.

There are three types of in-home audits offered through this program at a 60% discount to the customer:

- Standard audit for $60
- Standard audit with blower door test for $90
- Infrared audit which includes the standard and the blower door test for $120.

Customers are charged the appropriate service fee after the audit has been completed.

Public Service issued an RFP and hired third-party program implementer Lightly Treading, Inc for this program and Home Performance with ENERGY STAR. Lightly Treading is responsible for conducting the in-home audits and managing the program tracking, administration, and management of the auditor team. Lightly Treading employs its own auditors and subcontractors with other auditors to complete audits through the Public Service program.

The Online Home Analysis Tool is offered to residential customers in addition to the Home Energy Audit Program. This free online product gives customers an opportunity to enter their home's energy information (square footage, appliances, energy use habits, number of occupants in the home, etc) into an online tool that then provides the customer with a list of energy saving strategies to lower their homes monthly consumption and tips on ways to change their energy use habits.

Deviation from Goal

Overall the program did well in its initial year. The participation goal was not met for in-home audits but far exceeded goal for online audits. The in-home audit program did not begin to ramp up until late February. As a result, the program lost two to three months during one of its prime enrollment seasons (winter).

The program spend was significantly under budget due to the lower number of in-home participants. Through the year we promoted the program through various marketing efforts such as advertising, bill inserts, direct mail, event sponsorship, and call center training to boost participation.

Changes in 2009

There were no changes in 2009.

In-Home Smart Device Pilot

The In-Home Smart Device Pilot Program is designed to test how customers respond to various control strategies and energy consumption information delivered to their homes through in-home energy management devices. Multiple device vendors will participate and each will be evaluated independently. The Pilot will test a variety of devices and load control strategies to determine which are most effective. Participants are expected to lower their energy consumption when provided with the tools to monitor and track their energy usage. Participants will be outfitted with a combination of in-home devices from the following list, depending upon the device provider and their meter type:

- Utility-controllable programmable thermostat
- Plug-load appliance controls
- Gateway to communicate with thermostat and plug-load controls, and
- Encoder-Receiver-Transmitter (ERT) meter bridge device (for customers outside the broadband over power line (BPL) footprint).

Deviation from Goal

The expenses incurred in 2009 were for ramp-up costs, the majority of which were for the purchase of 400 sets of in-home smart devices (please see program description for details). Because this pilot launched so late in the year, it did not have goals approved in the 2009/10 DSM Plan.

Changes in 2009

60-Day Notice. This pilot program was added to the 2009/10 DSM Plan in November through the 60-Day Notice process.

Planning and Research

DSM Market Research

DSM Market Research conducts surveys and studies to gauge energy awareness and interest around DSM conservation efforts. These functions are needed to provide overall support for clarifying DSM issues and thoroughly understanding current and potential DSM customers. In 2009, the Company conducted the following - projects:

- ESource Consultative Services
- 2009 ENERGY STAR Awareness - Colorado Augment
- Dun & Bradstreet small business list refresh
- Home Energy Audit Tracker
- Residential DSM Attitude, Awareness & Usage (AAU)
- Low-Income Non-Energy Benefits Study
- Market Transformation / Net-to-Gross Policies and Practices Analysis
- Electric & Gas Potential Study.

Deviation from Goal

Market Research realized a significant savings on the cost of the Electric & Gas Potential Study. The anticipated cost was $1.5 million; the actual cost was $460,000.

Changes in 2009

One project, the Conservation Tracker study, was cancelled.

DSM Planning & Administration

DSM Planning & Administration is an indirect program with internal staff that manages all energy efficiency-related compliance filings, including this DSM Annual Status Report, the DSM Plans, and others as needed. This group performs the benefit-cost analyses of all of the energy efficiency and load management programs, provides tracking of the energy and demand savings achievements, and collaborates with the Resource Planning group to develop inputs for the resource plans. The DSM Planning & Administration group also provides management and oversight of all evaluation, measurement, and verification planning and internal policy guidance, hosts the quarterly DSM Roundtable, and works with outside consultants, when needed, to bring in outside expertise to our program planning. These functions are needed to ensure a cohesive and high-quality DSM portfolio that meets all legal requirements as well as the expectations of Public Service's customers, regulators, and staff.

Deviation from Goal

DSM Planning & Administration spent less than the originally approved electric budget by about 11% and gas budget by about 44%. This was primarily due to less than anticipated spend for internal labor resources for the electric budget and for gas budget deviation from less than anticipated spend in both internal labor and outside contractors/consultants.

Changes in 2009

There were no changes in 2009.

DSM Product Development

Product Development identifies, assesses, and develops new conservation and load management products and services. This work enables Public Service to identify and promote promising new conservation and load management opportunities for its customers. The product development process starts with ideas and concepts from customers, regulators, energy professionals, interest groups, and Public Service staff. These ideas are then carefully screened; only ideas with the greatest potential are selected for the development process.

In 2009, as part of the 2009/10 DSM Plan, Product Development developed 22 new products and programs. Ten were for C&I customers and 12 were for Residential customers. Product

Development also worked on the development of the Emerging Technology Grant Program to help fund the commercialization of new energy efficiency technologies and a pilot to revamp the High Efficiency Air Conditioning Program Tune-up component.

Towards the end of 2009, Product Development started looking forward to the next DSM Plan and determined new products to begin development on in 2010.

Deviation from Goal

Product Development did not spend its approved electric or gas budgets due to less than anticipated spend for internal labor resources.

Changes in 2009

There were no changes in 2009.

Evaluation, Measurement & Verification

The Evaluation, Measurement & Verification ("EM&V") Plan for Public Service was developed to evaluate, measure, and verify all direct savings gas and electric programs on an ongoing basis during each year as well as on a post-performance year basis in order to ensure that the savings, technical assumptions, and net-to-gross ratios that are reported by Public Service are as accurate as possible. The robustness of the proposal is balanced with the costs of the plan, being mindful of the objectives of ensuring accurate savings while keeping expenditures prudent and maintaining the cost effectiveness of programs. Program savings are validated through a multi-step process designed to ensure that rebates are correctly processed, rebated measures were installed, and equipment is performing as intended. The EM&V activities also provide opportunities to evaluate customer satisfaction and identify strategies for improving program delivery and effectiveness.

M&V is conducted on an ongoing basis on measures implemented throughout the program performance year. These ongoing M&V activities ensure that rebate application forms contain complete and correct information, the specified equipment is installed, and the claimed gross energy savings are accurate.

Comprehensive program evaluations are conducted for individual programs and focus on a thorough process and impact analysis. Market Research manages these evaluations which are needed to identify program strengths and opportunities for improvement. In 2009, the Company conducted the following program-specific research:

- Residential Saver's Switch Program (Electric)
- Residential Home Lighting & Recycling Program (Electric)
- Business Energy Design Assistance Program (Gas & Electric)
- Business Cooling Efficiency Program (Electric)

Results of EM&V activities are reported in the separate section entitled "Evaluation, Measurement, and Verification Results for 2009". Realization rates for a majority of the prescriptive programs were applied to 2009 gross savings while recommendations for changes to process, technical assumptions and net-to-gross ratios will be implemented in 2010.

Deviation from Goal

Both the electric and gas EM&V budgets were under-spent in 2009. The budget for this program is made up of general charges from the third-party contractors for database development, data tracking, and reporting, outside consultant charges for conducting and preparing comprehensive program evaluations, and internal labor for overseeing and administering the EM&V program. The under spend deviations were mainly from less than anticipated internal labor charges.

Changes in 2009

In the May 1, 2009 Amendment, an updated M&V Plan was submitted which included an M&V plan for the new Residential High Efficiency Air Conditioning Program and changes for the amended ENERGY STAR New Homes Program. On August 28, 2009, the Company posted a 60-Day Notice to add the Air Conditioning Tune-Up Pilot to the High Efficiency Air Conditioning Program. The Tune-Up Pilot has its own M&V plan in order to evaluate this pilot.

Evaluation, Measurement & Verification 2009 Results

Background

An Evaluation, Measurement, and Verification (EM&V) Plan is necessary to help ensure that Public Service's DSM programs are delivering reliable energy and demand savings and to improve overall program design and operation. For its 2009/10 DSM Plan, Public Service developed its EM&V Plan to evaluate, measure, and verify savings for gas and electric DSM programs during and after each performance year, in order to confirm that savings and technical assumptions were accurate. The robustness of any EM&V Plan must be balanced against the cost of performing evaluation, measurement and verification, keeping in mind the objectives of ensuring accurate savings calculations while keeping expenditures prudent and maintaining the cost effectiveness of programs.

Description of Process

The Company's EM&V approach has three components: rebate application validation, ongoing measurement and verification, and comprehensive program (process and impact) evaluations.

- **Rebate Application Validation** takes place on a daily basis during the program year and involves auditing all rebate applications received by the Company. Our Rebate Operations Department has a two-step process, as described in more detail in the EM&V Plan. The first step entails validating every application for accuracy and completeness as it is received prior to processing. In the second step, all rebates that have been entered into a tracking system are audited each day prior to issuing a rebate. The objective of this validation is to ensure that the rebate forms and the reported gross savings that are entered into the Company's databases are as accurate as possible and that customers are receiving the correct rebates.
- **Ongoing Measurement and Verification's** main objective is to ensure that the gross energy and demand savings reported by the Company are accurate. Ongoing M&V takes place during and just after the performance year.
    - For Prescriptive programs, contractors or program implementers design samples with a target of either 90% confidence interval with ± 10% precision or 80% confidence interval with ± 20% precision around the realization rates for each program. They then select random samples and perform field inspections on program participants and verify that the measures are installed and operating, and that the critical features of the measures that determine the savings are accurate. If not, the program's reported savings are adjusted using a "realization rate" that reflects the results of these inspections.
    - For Custom programs, the Company's third-party verification contractor, Nexant, calculates the expected project savings using technical assumptions that specifically fit the measure and application. These calculations are then verified through an internal engineering review. After installation of the efficiency measure, Public Service reviews the efficiency measure invoices to determine if the project remained within ± 10% of its original scope. If it did not, then the project is re-modeled. For projects with measure

savings equal to or greater than one GWh or 20,000 Dth, Nexant performs pre- and post-installation metering for a minimum of two weeks to measure and verify savings.
  - For Load Management programs, Public Service selected a third-party contractor to monitor air conditioning usage for randomly selected customer sites. The data collected were analyzed by another third-party consultant to determine the available load relief provided by the load management program.
- **Comprehensive Program Process and Impact Evaluations** are conducted on an individual program basis to assess overall program effectiveness and to determine what improvements or other changes should be implemented in the future. These evaluations do not verify the savings of a specific performance year and are not applied retrospectively to particular performance year activities. These comprehensive studies are not conducted each year, but instead are staggered over several years in order to comprehensively evaluate most of the portfolio of programs. The objectives of the process evaluation include: determining customer satisfaction with the program; identifying the populations that participate in the program and target markets that are potentially receptive, but do not currently participate in the program; identifying areas where the program, processes, or marketing could be improved; quantifying the program's market saturation levels; and suggesting appropriate rebate design. The objectives of the impact evaluation include reviewing and/or measuring the baseline and technical assumptions used to calculate program savings and estimating net program impacts. Net program savings result from taking into account attribution factors, such as free ridership and spillover.

Outline of Requirements

The Commission has provided guidance on the requirements for the Public Service's evaluation, measurement and verification activities in a number of places, including the Gas Rule (4 Code of Colorado Regulations (C.C.R.) 723-4-4755) and the approved Settlement Agreement for the Company's 2009/10 DSM Plan. The Gas Rule contains the following requirements:

4755. Measurement and Verification.

(a) Each utility shall implement a measurement and verification (M&V) program to evaluate the actual performance of its DSM program. The utility shall present its M & V plan as a part of its DSM plan application, pursuant to rule 4753, and shall include the complete M&V evaluation results with its annual DSM report in those years when the M&V is conducted.

(b) As a part of its M&V program, the utility shall, at a minimum, design an M&V plan to evaluate the effectiveness of the actual DSM measures and programs implemented by the utility. The M&V plan shall address: sampling bias; a data gathering process sufficient to yield statistically significant results; and generally accepted methods of data analysis. The M&V plan shall also include an evaluation of free ridership, spillover and the net-to-gross ratio. The M&V evaluation shall be implemented at least once per the DSM plan period. Subsequent DSM plan applications shall reflect the results of all completed M&V evaluations.

(c) The M&V evaluation shall, at a minimum, include the following:

(I) An assessment of whether the DSM programs have been implemented as set forth in its Commission approved DSM plan;

(II) A measurement of the actual energy savings for each DSM program, in dekatherms per dollar expended and in total dollars, and a comparison to the corresponding utility projections in the approved DSM plan;

(III) To the extent feasible, an assessment of the period of time that each DSM measure actually remains in service, and a comparison to the corresponding utility projections in the approved DSM plan;

(IV) A summary of the actual benefit/cost ratio for each DSM program within the approved DSM plan;

(V) An assessment of the extent to which education and market transformation efforts are achieving the desired results; and

(VI) Recommendations for how the utility can improve the market penetration and cost effectiveness of individual DSM programs.

Within the Settlement Agreement to Public Service's 2009/10 DSM Plan, parties agreed that the Company would conduct comprehensive program evaluations on the Home Lighting & Recycling, Saver's Switch, New Construction, and Cooling Efficiency Programs in 2009 (p. 18) and apply recommended changes in 2010.

In compliance with these requirements, Public Service has applied the following concepts to its EM&V Plan:

- The ongoing M&V Plan results will be reported with each annual DSM status report.
- For programs that use a sampling methodology for M&V, the Plan will address sampling bias, and all samples will be designed to yield statistically significant results.
- For programs that are selected for a comprehensive program evaluation, an evaluation of free ridership, spillover, and the net-to-gross ratio will be included as a study objective.
- The ongoing M&V Plan will be conducted annually for all programs. As discussed earlier, comprehensive program evaluations will be conducted on a staggered schedule over several years.
- Subsequent Biennial Plan applications shall reflect the results of ongoing M&V, results of completed comprehensive program evaluations, and results of any other DSM studies that are reviewed. In addition, per the Settlement Agreement, results of comprehensive program evaluations completed in 2009 will be applied in 2010.
- The annual M&V evaluation report will include an assessment of whether the DSM programs have been implemented as set forth in the Commission-approved Plan.

What M&V Occurred in 2009

In 2009, measurement and verification was conducted by a verification contractor (Nexant), a consultant or third-party vendor who ran the program, or by the customer or energy services company on behalf of the customer. The following paragraphs provide the M&V activities and results for each of the DSM programs offered by the Company in 2009. All M&V activities followed the processes outlined in the M&V Plan filed with the 2009/10 DSM Plan May 1, 2009 Amendment, except where described below. With its best efforts, the Company achieved portfolio realization rates of 98% for electric demand, 99% for electric energy, and 100% for natural gas energy. The installation rates were 99% for electric measures and 77% for natural gas measures. Where sampling was used in the M&V process for prescriptive measures, the achieved precision and confidence level is provided. In all cases, the actual precision achieved was significantly better than the goal of 10% to 20%.

Business Programs

Boiler Efficiency

For the Boiler Efficiency Program, measurement and verification were performed on a continuous basis throughout the program year. As applications were received, all critical customer information, equipment eligibility, and proper rebates amounts were reviewed, validated, and corrected if inaccurate. The internal Rebate Operations group audited 100% of the rebates applications to ensure that the information was reasonable and correctly entered into the tracking database.

Public Service completed only prescriptive measures in the Boiler Efficiency Program in 2009. For these projects, Nexant performed 18 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors including: the equipment type and size (condensing, non-condensing, MBTUH), model number, thermal/combustion efficiency (minimum of 85% for non-condensing or 92% for condensing), and operating hours per year. The contractor re-calculated the demand and energy savings using the verified factors and the deemed savings formulas and compared the calculation to the reported gross savings. The final Dth realization rate for the 2009 Boiler Efficiency prescriptive measures was 100.1% ± 0.1% within a confidence interval of 90%.

Compressed Air Efficiency

For the Compressed Air Efficiency Program, measurement and verification were performed on a continuous basis throughout the program year. As applications were received, all critical customer information, equipment eligibility, and proper rebates amounts were reviewed, validated, and corrected if inaccurate. The internal Rebate Operations group audited 100% of the rebates applications to ensure that the information was reasonable and correctly entered into the tracking database.

For prescriptive projects, Nexant performed 14 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors. For variable frequency drive compressors of less than 50 HP, the contractor verified the horse power, hours of operation, and make and model number of the equipment. For no-air-loss drain valves, the contractor verified the number of valves that replaced electronic timed drains, or the number of new

valves installed. The contractor re-calculated the demand and energy savings using the verified factors and the deemed savings formulas and compared the calculation to the reported gross savings. The final kW and kWh realization rates for the 2009 Compressed Air Efficiency prescriptive measures were 95.2% ± 7.8% and 95.2% ± 7.8%, respectively, within a confidence interval of 90%.

Public Service completed eight custom Compressed Air Efficiency projects in 2009. For those projects, the M&V process was built into the project approval process. When the customer applied for project pre-approval, the application (all technical assumptions and savings estimates) was first reviewed by a third-party contractor, Nexant. If the project passed Nexant's initial review, it was given a second review by an internal engineer. For the one project that exceeded savings of 0.5 GWh, the application was given a third review by the internal engineering team lead. Upon completion of the project, internal staff reviewed the invoices to verify that the project scope had not changed. There were three projects for which the scope had changed by more than ± 10%. These projects were re-modeled to determine the final savings. In addition, four of the projects were field verified to confirm installation.

Cooling Efficiency

For the Cooling Efficiency Program, measurement and verification were performed on a continuous basis throughout the program year. As applications were received, all critical customer information, equipment eligibility, and proper rebates amounts were reviewed, validated, and corrected if inaccurate. The internal Rebate Operations group audited 100% of the rebates applications to ensure that the information was reasonable and correctly entered into the tracking database.

For prescriptive projects, Nexant performed 45 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors, including: product name; model number, equipment capacity, market segment, and climate zone. If the project included variable air valves (VAVs), the VAVs were counted and confirmed to be new. The contractor re-calculated the demand and energy savings using the verified factors and the deemed savings formulas and compared the calculation to the reported gross savings. The final kW and kWh realization rates for the 2009 Cooling Efficiency prescriptive measures were 100.0% ± 0.0% and 100.0% ± 0.0%, respectively, within a confidence interval of 90%.

Public Service completed 14 custom Cooling Efficiency projects in 2009. For those custom projects, the M&V process was built into the project approval process. When the customer applied for project pre-approval, the application (all technical assumptions and savings estimates) was first reviewed by Nexant. If the project passed Nexant's initial review, it was given a second review by an internal engineer. Upon completion of the project, internal staff reviewed the invoices to verify that the project scope had not changed. For the seven projects where the scope changed by more than ± 10%, the project was re-modeled and the rebate was granted on the basis of the revised savings. In addition, ten projects were field verified by internal Account Managers.

Custom Efficiency

Public Service completed 102 electric and seven gas Custom Efficiency projects. For these projects, the M&V process was built into the project approval process. When the customer applied for project pre-approval, the application (all technical assumptions and savings estimates) was first reviewed by Nexant. If the project passed Nexant's initial review, it was given a second review by an internal engineer. For the two projects that exceeded savings of 0.5 GWh, the application was given

a third review by the internal engineering team lead. For the project that exceeded savings of 1.0 GWh, the application was given a final review by the engineering group manager. Upon completion of the project, internal staff reviewed the invoices to verify that the project scope had not changed. There were two projects for which the scope had changed by more than ± 10%. These projects were re-modeled to determine the final savings. In addition, for the project over 1.0 GWh, Nexant performed pre- and post-metering to verify savings. The Company reviewed the metering data to determine the final savings for each project. Finally, 22 projects were field verified by internal Account Managers.

Data Center Efficiency

No projects were completed in the Data Center Efficiency Program in 2009; thus, measurement and verification were not conducted. For future projects, the M&V process will be built into the project approval process. When the customer applies for project pre-approval, the application (all technical assumptions and savings estimates) will be reviewed by Nexant. If the project passes Nexant's initial review, it will be given a second review by an internal engineer. For projects that are expected to exceed savings of 0.5 GWh, the application will be given a third review by the internal engineering team lead. For projects expected to exceed savings of 1.0 GWh, the application will be given a final review by the engineering group manager. Upon completion of the project, internal staff will review the invoices to verify that the project scope has not changed. If the scope has changed, then the project will be re-modeled. In addition, for projects over 1.0 GWh, Nexant will perform pre- and post-metering to verify savings. The Company will review all metering data and/or bill histories to determine the final savings for each project.

Energy Management Systems

Public Service completed 15 EMS projects in 2009. The M&V process for this program was built into the project approval process. When the customer applied for project pre-approval, the application (all technical assumptions and savings estimates) was first reviewed by a third-party contractor, Nexant. If the project passed Nexant's initial review, it was given a second review by an internal engineer. For the two projects that exceeded savings of 0.5 GWh, the application was given a third review by the internal engineering team lead. For the project that exceeded savings of 1.0 GWh, the application was given a final review by the engineering group manager. There were three projects for which the scope had changed by more than ± 10%. These projects were re-modeled to determine the final savings. Upon completion of the project, internal staff reviewed the invoices to verify that the project scope had not changed. If the scope had changed, then the project was re-modeled. In addition, for projects over 1.0 GWh, Nexant performed pre- and post-metering to verify savings. The Company reviewed all metering data and/or bill histories to determine the final savings for each project. Finally, all 15 projects were field verified by internal Account Managers.

Furnace Efficiency

For the Furnace Efficiency Program, measurement and verification were performed on a continuous basis throughout the program year. As applications were received, all critical customer information, equipment eligibility, and proper rebates amounts were reviewed, validated, and corrected if inaccurate. The internal Rebate Operations group audited 100% of the rebates applications to ensure that the information was reasonable and correctly entered into the tracking database.

On-site project verification was performed on 11 installations. Nexant randomly selected samples of customers for ongoing measurement and verification. The contractor verified key savings factors, including: equipment (new or retrofit), size, model number, efficiency rating, operating hours per

year, and rebate paid ($80 or $120.) The contractor then re-calculated the demand and energy savings using the verified factors and the deemed savings formula and compared the calculation to the reported gross savings. The final Dth realization rate for the 2009 Furnace Efficiency was 100.0% ± 0.0% within a confidence interval of 90%.

Lighting Efficiency

For the Lighting Efficiency Program, measurement and verification were performed on a continuous basis throughout the program year. As applications were received, all critical customer information, equipment eligibility, and proper rebates amounts were reviewed, validated, and corrected if inaccurate. The internal Rebate Operations group audited 100% of the rebates applications to ensure that the information was reasonable and correctly entered into the tracking database.

For prescriptive projects (Retrofit and New Construction), Nexant performed 55 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors including: watts of bulbs/ballast installed, segment, type of lights, and number of bulbs/fixtures. The contractor re-calculated the demand and energy savings using the verified factors and the deemed savings formulas and compared the calculation to the reported gross savings. The final kW and kWh realization rates for the 2009 Lighting Efficiency prescriptive measures were 100.6% ± 0.8% and 100.3% ± 0.4%, respectively, within a confidence interval of 90%.

Public Service completed 87 custom Lighting Efficiency projects in 2009. The M&V process for these Lighting Redesign measures was built into the project approval process. When the customer applied for project pre-approval, the application (all technical assumptions and savings estimates) was first reviewed by a third-party contractor, Nexant. If the project passed Nexant's initial review, it was given a second review by an internal engineer. For the five projects that exceeded savings of 0.5 GWh, the application was given a third review by the internal engineering team lead. For the project that exceeded savings of 1.0 GWh, the application was given a final review by the engineering group manager. Upon completion of the project, internal staff reviewed the invoices to verify that the project scope had not changed. If the scope had changed, then the project was re-modeled. In addition, for the project over 1.0 GWh, Nexant performed pre- and post-metering to verify savings. The Company reviewed all metering data to determine the final savings for the project.

Motor & Drive Efficiency

For the Motor & Drive Efficiency Program, measurement and verification were performed on a continuous basis throughout the program year. As applications were received, all critical customer information, equipment eligibility, and proper rebates amounts were reviewed, validated, and corrected if inaccurate. The internal Rebate Operations group audited 100% of the rebates applications to ensure that the information was reasonable and correctly entered into the tracking database.

For prescriptive projects, Nexant performed 52 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors including: size of the motor, customer segment, actual motor efficiency, application of the motor, and the number of motors installed. The contractor re-calculated the demand and energy savings using the verified factors and the deemed savings formulas and compared the calculation to the reported gross

savings. The final kW and kWh realization rates for the 2009 Motor & Drive Efficiency prescriptive measures were 100.3% ± 0.5% and 99.3% ± 1.0%, respectively, within a confidence interval of 90%.

Public Service completed seven custom Motor & Drive Efficiency projects in 2009. For these projects, the M&V process for these measures was built into the project approval process. When the customer applied for project pre-approval, the application (all technical assumptions and savings estimates) was first reviewed by a third-party contractor, Nexant. If the project passed Nexant's initial review, it was given a second review by an internal engineer. For the two projects that exceeded savings of 0.5 GWh, the application was given a third review by the internal engineering team lead. For the one project that exceeded savings of 1.0 GWh, the application was given a final review by the engineering group manager. In 2009, two projects exceeded 0.5 GWh and one exceeded 1.0 GWh of savings. Upon completion of the project, internal staff reviewed the invoices to verify that the project scope had not changed. If the scope had changed, then the project was re-modeled. In addition, for the project over 1.0 GWh, Nexant performed pre- and post-metering to verify savings. The Company reviewed all metering data and/or bill histories to determine the final savings for each project.

New Construction

Public Service's New Construction Program includes two components: prescriptive Energy Efficient Buildings and custom Energy Design Assistance (EDA). No projects were completed under the Energy Efficient Buildings component in 2009. Measurement and verification for the EDA component was performed for all 26 projects prior to a rebate being paid. Two consulting groups, Architectural Energy Corporation and The Weidt Group, conducted verification on their projects as the final step in the process. Any measure recommended and adopted by the customer received at least a visual verification. Projects that varied by more than ±10% were remodeled and this information was used in our savings reports and for rebate payment.

Process Efficiency

Public Service completed four electric Process Efficiency projects in 2009: three prescriptive lighting projects and one prescriptive motors project. The Company used the realization rates determined for the prescriptive end-use programs (Lighting Efficiency and Motor & Drive Efficiency) to calculate final kW and kWh savings for the Process Efficiency Program.

Recommissioning

Public Service completed eight electric and gas Recommissioning implementations in 2009. The measurement and verification of these projects was relatively simple because each implemented measure resulted from a study completed by an independent party who analyzed each opportunity found. In turn, each study was thoroughly reviewed and approved by a qualified Public Service engineer.

For Recommissioning projects, the customer hired an engineering firm to conduct a study of the building to determine energy savings for each measure; an internal engineer then reviewed and verified 100% of projects for savings calculation accuracy. If a measure had savings greater than or equal to one GWh or 20,000 Dth per year, pre- and post metering was required unless it is too costly or physically impossible. No measures met this threshold in 2009, so no metering was completed.

Segment Efficiency

Public Service completed two prescriptive motors projects and one custom project through the Segment Efficiency Program in 2009. The Company used the realization rates determined for the prescriptive end-use program (Motor & Drive Efficiency) to calculate final kW and kWh savings for these prescriptive projects. For the custom project, measurement and verification was performed throughout the project. For this project, the M&V process was built into the project approval process. When the customer applied for project pre-approval, the application (all technical assumptions and savings estimates) was first reviewed by Nexant. If the project passed Nexant's initial review, it was given a second review by an internal engineer. Upon completion of the project, internal staff reviewed the invoices to verify that the project scope had not changed. If the scope had changed by more than ± 10%, then the project would have been re-modeled and the rebate granted on the basis of the revised savings.

Self-Direct

There were no Self-Direct projects completed in 2009; thus, no M&V review was performed. For future projects, the following process will be followed. In order to participate in the Self-Direct Custom Efficiency Program, customers must submit a detailed project application, which includes their proposed monitoring plan that will be used to document demand and energy savings. Pre- and post-installation measuring and verification is required for all projects with predicted savings greater than 250 MWh, though Public Service may request monitoring on any project, regardless of size. All measurement and verification is required to be performed in accordance with the International Performance Measurement and Verification Protocol (IPMVP) guidelines.

Upon approval of the monitoring plan, the customer may implement the project. After project completion, a project completion report is required that includes raw metering results and engineering calculations to demonstrate actual energy and demand savings based on pre and post monitoring results. The rebate amount is based on these results. A random sample of all pre-approved projects will be selected by the company and sent to an outside engineering firm for metering and verification.

Small Business Lighting

For Small Business Lighting Program, measurement and verification were performed on a continuous basis throughout the program year. As applications were received, all critical customer information, equipment eligibility, and proper rebates amounts were reviewed, validated, and corrected if inaccurate. The internal Rebate Operations group audited 100% of the rebates applications to ensure that the information was reasonable and correctly entered into the tracking database.

Additional on-site project verification was performed. Nexant randomly selected samples of customers who received a rebate for on-going M&V. Nexant then performed 13 field inspections of installed energy efficient equipment, and verified the key savings factors that were required in the formula. The savings factors that pertain to this program are: watts of bulbs/ballast, segment, type of lights, and number of bulbs/fixtures. The contractor re-calculates the demand and energy savings using the verified factors and the deemed savings formula and compare to the reported gross savings. The final kW and kWh realization rates for the 2009 Small Business Lighting prescriptive measures were 99.9% ± 0.2% and 99.9% ± 0.2%, respectively, within a confidence interval of 90%.

Standard Offer

No projects were completed in 2009; therefore, M&V of projects was not undertaken. In the future, evaluation, measurement, and verification for the Standard Offer Program will consist of three main components. External verification will occur for each project, and comprehensive evaluation will occur for the entire Standard Offer Program.

Project-specific measurement and verification will primarily be the responsibility of the customer. Each project will require a measurement and verification plan (M&V plan) to be included in the technical energy audit. The customer or ESCO will develop this M&V plan in accordance sound engineering practices and industry standard references such as the International Performance Measurement & Verification Protocol. The M&V plan will include annual measurement for a minimum of three years after installation. The ESCO or a third-party will implement the M&V plan, and use the collected data to determine the actual conservation for the implemented measures.

In addition, a random sample of all pre-approved projects will be selected by Public Service and sent to an outside engineering firm for metering and verification. Verification of the internal work completed for each project (rebate) will consist of Rebate Operations auditing 100% of the rebate applications to ensure that the information from the project completion report and rebate application is entered correctly into the tracking database.

Residential Programs

Energy Efficient Showerheads

Electric and natural gas water heating customers who received a postcard invitation were eligible to receive a free 1.5gpm showerhead. CustomerLink performed a phone survey of those customers that received a free showerhead. Based on the phone survey results, the installation rate was 67%.

ENERGY STAR New Homes

Public Service's ENERGY STAR New Homes Program was administered by a third-party provider, Residential Science Resources, Inc. (RSR). All homes rebated through this program were subject to verification by a qualified HERS (Home Energy Rating Service) Rater and their associated RESNET (Residential Energy Services Network) Provider. In most cases, the HERS Rater completed three site visits to each home during the construction phase. There are approximately 1,500 points of data collected and submitted for each home, including the duct blaster test results and the final HERS rating. Upon completion, RSR reviewed of each home and its HERS rating to confirm the energy savings calculations. Energy saving impacts for each home rebated were calculated based on the actual construction as compared to the reference (baseline) home for that particular area. As a result, the realization rate for this program is one. In 2009, 1,395 homes successfully completed the program requirements. Of these, 1,395 were gas participants (virtually all completed homes), 638 electric participants.

ENERGY STAR Retailer Incentive Pilot

The ENERGY STAR Retailer Incentive Pilot Program provided an incentive to Best Buy for the sales lift in ENERGY STAR appliances (refrigerators, dishwashers, clothes washers, refrigerators and window air conditioners). Public Service and Best Buy collaborated on advertising, promotion and merchandising of ENERGY STAR appliances and provided sales training for Best Buy employees. The Wisconsin Energy Conservation Corporation (WECC) performed the third-party administration and measurement and verification for the program. WECC obtained historical sales data from Best Buy and created a baseline for the appliances. At the end of the promotion, Public Service took energy savings credit for the difference between the baseline and actual sales.

Evaporative Cooling Rebate

The Evaporative Cooling Rebate Program provides rebates to customers who purchase efficient evaporative cooling units. This program was measured and verified in a two-step process. As rebates were received, critical customer information, equipment eligibility and proper rebate amounts were reviewed, validated, and corrected if inaccurate. The Rebate Operations group also audited the rebate applications to ensure that the information from the form was entered correctly into the tracking database.

In addition, a third-party verification contractor (Nexant) conducted field M&V on 66 customers who received rebates. The contractor made appointments with the sample customers to perform field inspections and to verify the installed/rebated equipment. The final report for the Evaporative Cooling Rebates Program in 2009 demonstrated a 97.4% ± 3.0% realization rate.

Heating System Rebate

For the Heating System Rebates Program, all rebate applications were audited with a two-step process. As rebates were received, critical customer information, equipment eligibility and proper rebate amounts were reviewed, validated and corrected if inaccurate. In the second step, Rebate Operations audits the rebate applications to ensure that the information from the form was entered correctly into the tracking database.

A third-party verification contractor (Nexant) conducted field M&V, randomly selecting 67 customers who received a rebate. The contractor made appointments with the sample customers to perform field inspections and to verify the installed/rebated equipment. The final report for the Heating System Rebates Program in 2009 demonstrated a 100% ± 0.0% realization rate.

High Efficiency Air Conditioning

The High Efficiency Air Conditioning program was added as a new program on May 1 and was slower than anticipated to launch. While contractors began selling and installing units in June, more than 90% of the applications were not submitted until after September 1, 2009. There were 119 participants in 2009; all air conditioning units were installed after July 10, 2009. Because field testing of air conditioning equipment requires temperatures to be above 70° F, it cannot be performed during the winter season. To work around this issue for 2009, Public Service elected to have the program savings verified through an outside engineering review of the rebate applications for quality installation. Public Service employed the Dunwoody Institute of Minneapolis to review 68 rebate applications. Dunwoody used HVAC industry standard calculations to verify the quality installation data provided by the Colorado contractors for each customer application/installation site. These calculations account for air conditioner sizing, refrigerant charge and airflow data, and ductwork sealing methods. Dunwoody assessed a pass/fail rate for applications based on industry-standard quality practices. Units that failed typically were the result of over- or under-charged refrigerant, inaccurately adjusted airflow, and or the installer having submitted numbers that were not calculable. Through this review, Dunwoody determined final 2009 kW and kWh realization rates of 84%.

Home Lighting & Recycling

Nexant performed Public Service's Home Lighting & Recycling Program measurement and verification. The verification process consisted of cross-checking Public Service's program tracking databases with a sample of instant rebate forms from various retailers. These rebate forms directly reduced the cost of certain ENERGY STAR compact fluorescent lamps at "check-out." No customer contact was made for this program. Nexant examined and verified 251 instant rebate forms containing 416 individual rebates out of the total 17,063 rebates contained within Public Service's program tracking spreadsheet. Results of this effort showed no discrepancy between the Company's data and that on the instant rebate forms. Nexant also completed a verification of Public Service's data regarding the manufacturer, wattage, and quantity per package for various model numbers of CFL products. For all model numbers able to be verified, each piece of data was accurate. Eleven of the 57 products listed were not verifiable. Those 11 products were discontinued by either the manufacturer or the retailer.

Home Performance with ENERGY STAR

Public Service's third-party program implementer, Lightly Treading, Inc., performed verification of home improvements, including a blower door test to verify the natural air changes per hour, a Combustion Appliance Zone test, and inspection of all work performed.

Insulation Rebate

All rebate applications are audited with a two-step process. On the front-end, as rebate applications are received, all critical customer information, equipment eligibility and proper rebate amounts are reviewed, validated, and corrected if inaccurate. The second step takes place prior to the rebate being issued where Rebate Operations audits 100% of the rebate applications to ensure that the information from the form was entered correctly into the tracking database.

A third-party verification contractor, Nexant, performed additional M&V for the Insulation Rebates Program. A phone survey was given to a random sample of 67 participants with which we confirmed what was installed in the home (attic insulation, wall insulation and air sealing). The final report for the Insulation Rebates Program in 2009 found a realization rate of 100% ± 0.0%.

Refrigerator Recycling

For the Refrigerator Recycling Program, Nexant performed phone surveys at year-end. The survey was given to a random sample of participants and confirmed the removal of the refrigerator and that the refrigerator was operable at time of removal. The final report for the Refrigerator Recycling Program in 2009 found a realization rate of 100% ± 0.0%.

School Education Kits

Program administration, measurement, and verification for the School Education Kits Program were conducted by a third-party vendor, Resource Action Programs (RAP). RAP used parental surveys to determine which measures were installed in the home. These surveys were evaluated and summarized by RAP. The final year-end savings for the program were determined using the installation rates by measure determined by RAP, which were 46% for aerators, 66% for CFLs and 48% for showerheads.

Water Heating Rebates

All rebate applications were audited with a two-step process. As rebates were received, critical customer information, equipment eligibility and proper rebate amounts were reviewed, validated and corrected if inaccurate. In the second step, Rebate Operations audited the rebate applications to ensure that the information from the form was entered correctly into the tracking database.

A third-party verification contractor, Nexant, conducted field M&V, randomly selecting samples of customers who received a rebate. The contractor visited 13 randomly selected customers to perform field inspections and to verify the installed/rebated equipment. The final report for the Water Heating Rebates Program in 2009 demonstrated a 100.2% ± 0.1% realization rate.

Saver's Switch

Public Service's load management group selected 100 random customer sites from the Saver's Switch population in Colorado. A third-party, AEC, installed data loggers on these sites to monitor air conditioning usage during control days and non-control days. The data obtained was analyzed by KEMA. The sample is pulled from the cumulative base of participants, not only those who signed up in 2009. Combining the current year's data with that from previous years, KEMA established a

stable forecast estimate of 1.03 customer kW per switch of available load relief, which results in a realization rate of 97%.

Easy Savings Energy Kits
This program was implemented by a third-party provider, the Governor's Energy Office (GEO), who identified income-qualified customers to receive kits. CustomerLink performed a phone survey to those customers who received a kit. Installation rates were found to be 49% for aerators, 77% for CFLs, and 55% for showerheads.

Multi-Family Weatherization
Public Service's third-party program implementer, Energy Outreach of Colorado (EOC), performed the measurement and verification of the Multi-Family Weatherization Program. Once the energy efficiency improvements were completed, EOC audited each building to confirm that all work was completed correctly. Savings were calculated for each project based on the measures installed. As a result, the realization rate for this program is one.

Non-Profit Energy Efficiency
Public Service's third-party program implementer, Energy Outreach of Colorado (EOC), performed the measurement and verification of the Multi-Family Weatherization Program. Once the energy efficiency improvements were completed, EOC audited each building to confirm that all work was completed correctly. Savings were calculated for each project based on the measures installed. As a result, the realization rate for this program is one.

Single-Family Weatherization
Public Service's third-party program implementer, the Governor's Energy Office (GEO), managed the eight weatherization agencies that performed energy savings measures in each income-qualified single-family home. 100% of homes weatherized were subject to verification from Public Service at any given time. The Company received a signed or electronic form from each customer attesting to the work performed by GEO. Energy savings were calculated on a per measure, per home, basis. Savings were calculated for each project based on the measures installed. As a result, the realization rate for this program is one.

Post-Program Year Activities

All measurement and verification activities for the 2009 performance year were completed in 2009 or early in 2010 and all results are included in this report. Public Service intends to complete all future M&V activities annually prior to filing its M&V Report.

Program Process and Impact Evaluations Performed in 2009

Cooling Efficiency

This research study, conducted by PA Consulting, administered surveys to program participants, influential trade allies that were referred by program participants, and a random sample of customers that had not participated in the program in order to assess the effectiveness of the Cooling Efficiency Program processes and the accuracy of deemed savings. In addition, a peer utility benchmark was completed with eight other utilities, informal interviews were held with several Public Service staff, and additional secondary and industry standard information was reviewed and analyzed as it related to the Cooling Efficiency Program.

Recommendations for the Cooling Efficiency Program were provided in four categories: Administrative, Marketing and Outreach, Net-to-Gross Ratio and Program Design. Administrative recommendations include communicating program information to staff and trade allies, adding additional trade relations manager resources, assessing internal staff needs, and providing tools and training to trade allies. Marketing and Outreach recommendations include customizing tools for target markets, directly marketing to small business customers, and continuing current marketing strategies to customers. Program Design recommendations include revisiting and prioritizing target markets, considering increasing rebate levels, reviewing the Custom Efficiency process as it relates to Cooling Efficiency, engaging smaller business customers, considering modifying the PTAC structure, and setting the Net-To-Gross between 0.7 and 0.8 for 2010. Public Service has set the NTG at 0.75 for this program in 2010.

Home Lighting & Recycling

This evaluation, conducted by The Cadmus Group, focused on: a market assessment to determine saturation and penetration of CFLs in Colorado homes; a process evaluation to determine the effectiveness of current program attributes, delivery, and marketing approaches; program satisfaction and CFL purchase barriers; and an impact evaluation to calculate net and gross savings impacts associated with the program.

The evaluation findings and conclusions were informed by an array of data collection activities, including: staff interviews; surveys of random Public Service customers; surveys of known end-use customers that purchased program incented bulbs; in-home lighting audits; surveys of lighting manufacturers and retailers; and participation in a multistate regression model.

Recommendations for the Home Lighting & Recycling Program were provided in the following categories: Features and Marketing, Net to Gross Ratio, Implementation Strategies to Maximize Future NTG, and Program Design. Program Features and Marketing recommendations include:

- making the Colorado Home Lighting Program available year-round,
- encouraging stores to better train their floor staff,
- ensuring program bulbs are stocked,
- creating pricing labels and signage in preparation for a promotion period,
- supporting WECC's plan for an additional field representative in Colorado to enhance communication and promotion coordination at the store level,
- improving the signage and POP material;

- promoting proper disposal of CFLs and
- offering a coupon for a discount rate at which customers could recycle their CFLs at a local hardware store.

Although the NTG ratio, inclusive of all forms of spillover, may be as high as 1.65, this evaluation recommends using a conservative estimate of 1.0.

Implementation Strategies to Maximize Future NTG recommendations include:

- expanding participation among grocery stores, discount stores, and drug stores;
- focusing on specialty CFLs, such as dimmables, three-ways, reflectors, and covered lamps.
- consider examining and promoting other energy-efficient lighting alternatives, such as LEDs as the CFL market becomes more saturated throughout the country
- consider alternative incentive strategies for retailers or distribution channels with low NTG values.

Saver's Switch

The Cadmus Group conducted a process evaluation which focused primarily on: determining the effectiveness of current program attributes, delivery, and marketing approaches; evaluating participant satisfaction and decision making regarding program participation; identifying participation barriers; and profiling prospective participants. The evaluation findings and conclusions were informed by an array of data collection activities, including: a literature review; staff interviews; Heating Ventilation Air Conditioning (HVAC) contractor focus groups; surveys of other utility programs; and surveys of participants, nonparticipants, and participants who withdrew.

Based on study findings, Cadmus recommended continuation of the high-quality program delivery, providing participants with additional contact and enhanced program information. Cadmus also recommended continued efforts to build relationships with HVAC contractors and a refinement and clarification of market messaging.

New Construction

Public Service contracted with KEMA to perform the process and impact evaluation of the 2007-8 Energy Design Assistance program. Based on its evaluation, KEMA made recommendations on the program processes, marketing and outreach, benchmarking/best practices, program enhancements, and net-to-gross. KEMA made the following Program Process recommendations:

1. Continue efforts to streamline the application process to expedite review.
2. Support provided for LEED or other green certification programs need to be clearly identified in the program promotion, marketing materials, and initial engagements.
3. Increase communications across all program stakeholders on marketing plans, expectations, and activities.

KEMA had the following marketing and outreach suggestions:

1. Split out education and awareness goals by specifically developing website content to create "curb appeal" specific to owners, and another set specific to architects and engineers.
2. Work with participating architects, engineers and end-use equipment vendors to develop case studies and publicity with savings data.

3. Market the program at the permit level. A pilot of this effort would need to be conducted to determine if permit submittals allow sufficient time for customers to participate in EDA.
4. Develop sector-specific approaches for 2010 in those sectors shown to be underrepresented by EDA.

KEMA made the following recommendations with regard to benchmarking and best practices:

1. Leverage existing program benchmarks like ACEEE Utilities Program and widely share practices with colleagues to problem solve and grow the program.
2. Consider the establishment and tracking of market transformation metrics. The program does reveal market transformation benefits, but there are currently no specific metrics or goals associated to market transformation.

KEMA determined that the net-to-gross value for the Colorado Energy Design Assistance Program should be 79.1%.

M&V Results

The following pages provide Tables 16a and 16b, which describe the installation rates and realization rates used to calculate net, verified savings by program component. The columns of the table are defined in the following bullets:

- **2009 Program** – The DSM program offered by Public Service in 2009.
- **End-Use Measure Type** – Whether the program was prescriptive or custom, or the program components, if the M&V process differed for different projects within a single program.
- **Installation Rate** – The percent of measures that were installed, as opposed to purchased.
- **Demand (kW) Realization Rate** – The ratio of gross electric demand savings measured in the M&V process to the electric demand savings claimed in the rebate application, expressed as a percentage.
- **Energy (kWh) Realization Rate** – The ratio of gross electric energy savings measured in the M&V process to the electric energy savings claimed in the rebate application, expressed as a percentage.
- **Energy (Dth) Realization Rate** – The ratio of gross natural gas energy savings measured in the M&V process to the gas energy savings claimed in the rebate application, expressed as a percentage.
- **Year-End Net Gen kW** – The final, net pre-verified electric demand savings for 2009.
- **Verified Net Gen kW** – The final, net measured and verified electric demand savings for 2009.
- **Year-End Net Gen kWh** – The final, net pre-verified electric energy savings for 2009.
- **Verified Net Gen kWh** – The net final, measured and verified electric energy savings for 2009.
- **Year-End Net Dth** – The final, net pre-verified natural gas energy savings for 2009.
- **Verified Net Dth** – The net final, measured and verified natural gas energy savings for 2009.

Net, verified savings were calculated by multiplying the net savings by the installation rate and the appropriate realization rate, as follows:

Net, Verified Savings = Net Savings x Installation Rate x Realization Rate

Table 16a: Business Segment Installation Rates, Realization Rates, and Final Net, Verified Savings by Program Component

2009 Program	End-Use/Measure Type	Installation Rate	Demand (kW) Realization Rate	Energy (kWh) Realization Rate	Energy (Dth) Realization Rate	Year-End Net Gen kW	Verified Net Gen kW	Year-End Net Gen kWh	Ver fied Net Gen kWh	Year-End Net Dth	Verified Net Dth
Business Segment											
Boiler Efficiency	Prescriptive	100 0%	N/A	N/A	100 0%	N/A	N/A	N/A	N/A	13,019	13,019
	Custom	100 0%	N/A	N/A	100 0%	N/A	N/A	N/A	N/A	0	0
Compressed Air Efficiency	Prescriptive	100 0%	95 2%	95 2%	N/A	73	70	366,096	348,523	N/A	N/A
	Custom	100 0%	100 0%	100 0%	N/A	401	401	3,663,076	3,663,076	N/A	N/A
Cooling Efficiency	Prescriptive	100 0%	100 0%	100 0%	N/A	3,224	3,224	4,630,580	4,630,580	N/A	N/A
	Custom	100 0%	100 0%	100 0%	N/A	327	327	1,933,029	1,933,029	N/A	N/A
Custom Efficiency	Custom	100 0%	100 0%	100 0%	100 0%	957	957	10,176,204	10,176,204	6,838	6,838
Data Center Efficiency	Custom	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A
Energy Management Systems	Custom	100 0%	100 0%	100 0%	100 0%	163	163	5,552,852	5,552,852	1,866	1,866
Furnace Efficiency	Prescriptive	100 0%	N/A	N/A	100 0%	N/A	N/A	N/A	N/A	651	651
Lighting Efficiency	Prescriptive	100 0%	100 6%	100 3%	N/A	14,219	14,304	62,980,483	63,169,425	N/A	N/A
	Custom	100 0%	100 0%	100 0%	N/A	1,887	1,887	11,619,676	11,619,676	N/A	N/A
Motor & Drive Efficiency	Prescriptive	100 0%	100 3%	99 3%	N/A	3,446	3,456	21,438,503	21,288,433	N/A	N/A
	Custom	100 0%	100 0%	100 0%	N/A	454	454	3,607,727	3,607,727	N/A	N/A
New Construction	Prescriptive	100 0%	100 0%	100 0%	100 0%	0	0	0	0	0	0
	Custom	100 0%	100 0%	100 0%	100 0%	3,074	3,074	11,914,771	11,914,771	N/A	N/A
Process Efficiency	Prescriptive Lighting	100 0%	100 6%	100 3%	N/A	104	105	744,085	746,317	0	0
	Prescriptive Motors	100 0%	100 3%	99 3%	N/A	10	11	52,038	51,673	0	0
	Custom	100 0%	100 0%	100 0%	100 0%	0	0	0	0	0	0
Recommissioning	Custom	100 0%	100 0%	100 0%	100 0%	341	341	4,722,687	4,722,687	2,852	2,852
Segment Efficiency	Prescriptive Cooling	100 0%	100 0%	100 0%	N/A	0	0	0	0	N/A	N/A
	Prescriptive Lighting	100 0%	100 6%	100 3%	N/A	0	0	0	0	N/A	N/A
	Prescriptive Motors	100 0%	100 3%	99 3%	N/A	14	14	50,644	50,290	N/A	N/A
	Custom Cooling	100 0%	100 0%	100 0%	N/A	0	0	0	0	N/A	N/A
	Custom Custom	100 0%	100 0%	100 0%	100 0%	29	29	8,907	8,907	0	0
	Custom EMS	100 0%	100 0%	100 0%	100 0%	0	0	0	0	0	0
	Custom Lighting	100 0%	100 0%	100 0%	N/A	0	0	0	0	N/A	N/A
	Custom Motors	100 0%	100 0%	100 0%	N/A	0	0	0	0	N/A	N/A
	Custom Recommissioning	100 0%	100 0%	100 0%	100 0%	0	0	0	0	0	0
Self-Direct	Custom	N/A	N/A	N/A	N/A	0	0	0	0	0	0
Small Business Lighting	Prescriptive	100 0%	99 9%	99 9%	N/A	82	82	298,326	298,028	N/A	N/A
Standard Offer	Custom	N/A	N/A	N/A	N/A	0	0	0	0	0	0
	Energy Efficiency Subtotal					**28,805**	**28,897**	**143,759,684**	**143,782,198**	**25,226**	**25,226**
Business Segment Total						**28,805**	**28,897**	**143,759,684**	**143,782,198**	**25,226**	**25,226**

Table 16b: Residential Segment and Low-Income Segment Installation Rates, Realization Rates, and Final Net, Verified Savings by Program Component

2009 Program	End-Use/Measure Type	Installation Rate	Demand (kW) Realization Rate	Energy (kWh) Realization Rate	Energy (Dth) Realization Rate	Year-End Net Gen kW	Verified Net Gen kW	Year-End Net Gen kWh	Ver fied Net Gen kWh	Year-End Net Dth	Verified Net Dth
Residential Segment											
Energy Efficient Showerheads		67 0%	100 0%	100 0%	100 0%	0	0	3,568,408	2,390,833	97,612	65,400
ENERGY STAR New Homes		100 0%	100 0%	100 0%	100 0%	-76	-76	359,057	359,057	19,337	19,337
ENERGY STAR Retailer Incentive		100 0%	100 0%	100 0%	N/A	6	6	210,707	210,707	N/A	N/A
Evaporative Cooling Rebate		100 0%	97 4%	97 4%	N/A	2,845	2,771	1,213,527	1,181,975	N/A	N/A
Heating System Rebate		100 0%	N/A	N/A	100 0%	N/A	N/A	N/A	N/A	35,183	35,183
High Efficiency Air Conditioning	Equipment Rebates	100 0%	100 0%	100 0%	N/A	34	34	30,185	30,185	N/A	N/A
	Quality Installation	100 0%	84 0%	84 0%	N/A	94	79	68,501	57,541	N/A	N/A
	Tune-Ups	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A
Home Lighting & Recycling		100 0%	100 0%	100 0%	N/A	4,492	4,492	58,263,630	58,263,630	N/A	N/A
Home Performance w/ ENERGY STAR		100 0%	100 0%	100 0%	100 0%	0	0	1,367	1,367	19	19
Insulation Rebate		100 0%	N/A	N/A	100 0%	N/A	N/A	N/A	N/A	45,558	45,558
Refrigerator Recycling		100 0%	100 0%	100 0%	N/A	64	64	470,654	470,654	N/A	N/A
School Education Kits	Aerator	46 0%	100 0%	100 0%	100 0%	0	0	224,199	103,131	8,810	4,053
	CFL	66 0%	100 0%	100 0%	N/A	125	83	1,895,499	1,251,030	N/A	N/A
	Showerhead	48 0%	100 0%	100 0%	100 0%	0	0	428,016	205,448	16,726	8,028
Water Heating Rebate		100 0%	N/A	N/A	100 2%	N/A	N/A	N/A	N/A	4,164	4,172
	Energy Efficiency Subtotal					**7,583**	**7,451**	**66,733,750**	**64,525,558**	**227,408**	**181,750**
Saver's Switch		100 0%	97 3%	100 0%	N/A	23,274	22,656	47,515	47,515	N/A	N/A
	Load Management Subtotal					**23,274**	**22,656**	**47,515**	**47,515**	**N/A**	**N/A**
Residential Segment Total (w/o Low-Income)						**30,857**	**30,107**	**66,781,264**	**64,573,072**	**227,408**	**181,750**
Low-Income Segment											
Easy Savings Energy Kits	Aerator	49 0%	100 0%	100 0%	100 0%	0	0	1,081,593	529,981	57,371	28,112
	CFL	77 0%	100 0%	100 0%	N/A	638	491	9,419,268	7,252,836	0	0
	Showerhead	55 0%	100 0%	100 0%	100 0%	0	0	761,345	418,740	40,191	22,105
Multi-Family Weatherization		100 0%	100 0%	100 0%	100 0%	79	79	180,168	180,168	25,668	25,668
Non-Profit Energy Efficiency		100 0%	100 0%	100 0%	100 0%	95	95	1,200,617	1,200,617	945	945
Single-Family Weatherization		100 0%	100 0%	100 0%	100 0%	125	125	1,673,535	1,673,535	24,954	24,954
Low-Income Segment Total						**938**	**791**	**14,316,525**	**11,255,876**	**149,130**	**101,785**
	2009 TOTAL					**60,599**	**59,796**	**224,857,473**	**219,611,146**	**401,764**	**308,761**

Cost-Effectiveness

Cost-effectiveness ("benefit-cost") analyses represent the ratio of a program's benefits to its costs. By varying which benefits and costs are included in the calculation, the ratio can show how beneficial a DSM portfolio, program, or measure might be from a number of different perspectives (the Participant, Utility, Rate Impact, or Total Resource Cost). In Colorado, the Commission calls for utilities to use the Modified Total Resource Cost (MTRC) Test for its cost-effectiveness analyses. The MTRC Test takes into account system and other benefits, utility and participant costs, as well as environmental adders to calculate the benefit-cost ratio. These analyses are performed in a multi-step process that takes into account, among others, the:

- Savings achieved by the program;
- Participant and Utility Spending on the program, by budget category;
- Avoided costs for the program (discussed in more detail in the next section of this document);
- Incremental O&M and Capital Spending and Savings of the program;
- Lifetime, operating hours, coincidence of savings with summer peak, net-to-gross, transmission loss factors, and realization rates for the program.

The benefit-cost ratio is first determined at the measure-level; individual measures are then combined to produce the program-level analysis. All of the programs in the portfolio (gas or electric) are then combined to create the portfolio-level benefit-cost analyses, as provided in Tables 18 and 19.

Public Service is reporting 2009 electric and gas portfolio MTRC Test results of 4.05 and 1.36, respectively. These results are shown in Tables 18 and 19. The portfolio results are based upon electric net benefits of $212,779,146 and gas net benefits of $9,630,068. Pursuant to the DSM Rules and Statutes, Public Service has provided the cost-effectiveness results (MTRC Test ratios) for each of the programs in its electric and gas portfolios in Tables 3 and 4 in the Executive Summary section of this document. The full benefit-cost analyses for all programs are being provided as workpapers to this Status Report.

Table 18: Public Service's 2009 Electric DSM Portfolio Benefit-Cost Analysis

DSM PORTFOLIO-ELECTRIC	2009	ELECTRIC	ACTUAL

2009 Electric Benefit-Cost Analysis

	Participant Test ($)	Utility Test ($)	Rate Impact Test ($)	Modified Total Resource Test ($)
System Benefits (Avoided Costs)				
Generation Capacity		$85,689,545	$85,689,545	$85,689,545
Transmission & Distribution Capacity		$17,934,321	$17,934,321	$17,934,321
Marginal Energy		$139,673,233	$139,673,233	$139,673,233
Avoided Emissions (CO2, SOx)		$30,377,234	$30,377,234	$30,377,234
Subtotal		$273,674,334	$273,674,334	$273,674,334
Non-Energy Benefits Adder (0%)				$27,425,901
Subtotal		$273,674,334	$273,674,334	$301,100,235
Other Benefits				
Participant Rebates and Incentives	$17,065,847			$17,065,847
Vendor Incentives				$0
Incremental Capital Savings	$0			$0
Incremental O&M Savings	$3,724,997			$2,563,121
Subtotal	$20,790,844			$19,628,969
Reduction in Sales Revenue				
Electric	$158,870,505		$145,047,118	
Subtotal	$158,870,505		$145,047,118	
Utility Program Costs				
Program Planning & Design		$556,557	$556,557	$556,557
Administration & Program Delivery		$12,724,368	$12,724,368	$12,724,368
Advertising/Promotion/Customer Ed		$7,178,516	$7,178,516	$7,178,516
Participant Rebates and Incentives		$17,065,847	$17,065,847	$17,065,847
Equipment & Installation		$4,982,976	$4,982,976	$4,982,976
Measurement and Verification		$1,356,156	$1,356,156	$1,356,156
Miscellaneous		$0	$0	$0
Subtotal		$43,864,419	$43,864,419	$43,864,419
Participant Costs				
Incremental Capital Costs	$37,652,674			$34,953,271
Incremental O&M Costs	$0			$0
Subtotal	$37,652,674			$34,953,271
Total Benefits	$179,661,349	$273,674,334	$273,674,334	$320,729,203
Total Costs	$37,652,674	$43,864,419	$188,911,537	$78,817,691
Net Benefit (Cost)	$142,008,675	$229,809,915	$84,762,796	$241,911,513
Benefit/Cost Ratio	**4.77**	**6.24**	**1.45**	**4.07**

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

Input Summary and Totals

Program Inputs per Customer kW		GOAL	ACTUAL
Lifetime (Weighted on Generator kWh)	A	14 years	14 years
Annual Hours	B	8760	8760
Gross Customer kW	C	1 kW	1 kW
Generator Peak Coincidence Factor	D	38.15%	26.67%
Gross Load Factor at Customer	E	13.98%	11.67%
Net-to-Gross (Energy)	F	88.4%	89.8%
Net-to-Gross (Demand)	G	91.1%	92.7%
Transmission Loss Factor (Energy)	H	6.64%	6.66%
Transmission Loss Factor (Demand)	I	6.80%	6.78%
Realization Rate (Energy)	**J**	**100.00%**	**97.67%**
Realization Rate (Demand)	**K**	**100.00%**	**98.67%**
MTRC Net Benefit (Cost)	**L**	$1,297	$241,911,513
MTRC Non-Energy Benefit Adder	**M**	$155	$27,425,901
Net coincident kW Saved at Generator	**(G x C x K) x D / (1 - I)**	0.3729 kW	0.2617 kW
Gross Annual kWh Saved at Customer	(B x E x C)	1,225 kWh	1,022 kWh
Net Annual kWh Saved at Customer	**(F x (B x E x C x J))**	1,083 kWh	897 kWh
Net Annual kWh Saved at Generator	**(F x (B x E x C x J)) / (1 - H)**	1,160 kWh	961 kWh
Program Summary per Participant			
Gross kW Saved at Customer	P	0.42 kW	0.39 kW
Net coincident kW Saved at Generator	**(G x P x K) x D / (1 - I)**	0.16 kW	0.10 kW
Gross Annual kWh Saved at Customer	(B x E x P)	510 kWh	394 kWh
Net Annual kWh Saved at Customer	**(F x (B x E x P x J))**	451 kWh	346 kWh
Net Annual kWh Saved at Generator	**(F x (B x E x P x J)) / (1 - H)**	484 kWh	371 kWh
Program Summary All Participants			
Total Participants	Q	364,261	592,550
Total Budget	R	**$50,538,284**	**$43,864,419**
Gross kW Saved at Customer	(Q x P)	151,616 kW	228,501 kW
Net coincident kW Saved at Generator	**((G x P x K) x D / (1 - I)) x Q**	**56,537 kW**	**59,796 kW**
Gross Annual kWh Saved at Customer	(B x E x P) x Q	185,671,333 kWh	233,594,565 kWh
Gross Installed and Realized Annual kW	**(B x E x P x J) x Q**	185,671,333 kWh	228,144,386 kWh
Net Annual kWh Saved at Customer	(F x (B x E x P x J)) x Q	164,153,629 kWh	204,983,952 kWh
Net Annual kWh Saved at Generator	**((F x (B x E x P x J)) / (1 - H)) x Q**	**175,835,310 kWh**	**219,611,146 kWh**
TRC Net Benefits with Adder	(Q x P x L)	**$196,592,275**	**$241,911,513**
TRC Net Benefits without Adder	(Q x P x (L - M))	**$173,039,872**	**$214,485,612**
Utility Program Cost per kWh Lifetime		**$0.0199**	**$0.0145**
Utility Program Cost per kW at Gen		**$894**	**$734**
Participant Payback with Rebate		**1.7 years**	**1.8 years**
Participant Payback without Rebate		**4.3 years**	**3.3 years**

Table 19: Public Service's 2009 Gas DSM Portfolio Benefit-Cost Analysis

DSM PORTFOLIO-GAS | **2009** | **GAS** | **ACTUAL**

Gas Benefit-Cost Analysis

	Participant Test ($)	Utility Test ($)	Rate Impact Test ($)	Modified Total Resource Test ($)
System Benefits (Avoided Costs)				
Commodity Cost Reduction		$25,126,053	$25,126,053	$25,126,053
Variable O&M Savings		$130,197	$130,197	$130,197
Demand Savings		$1,483,238	$1,483,238	$1,483,238
Subtotal		$26,739,488	$26,739,488	$26,739,488
Emissions and Non-Energy Benefits Adder (5%)				$1,336,974
Subtotal		$26,739,488	$26,739,488	$28,076,463
Other Benefits				
Participant Rebates and Incentives	$5,069,730			$5,069,730
Vendor Incentives				$0
Incremental Capital Savings	$0			$0
Incremental O&M Savings	$3,721,724			$3,512,629
Subtotal	$8,791,454			$8,582,358
Reduction in Sales Revenue				
Gas	$29,809,329		$26,553,902	
Subtotal	$29,809,329		$26,553,902	
Utility Program Costs				
Program Planning & Design		$104,193	$104,193	$104,193
Administration & Program Delivery		$3,777,638	$3,777,638	$3,777,638
Advertising/Promotion/Customer Ed		$1,756,828	$1,756,828	$1,756,828
Participant Rebates and Incentives		$5,069,730	$5,069,730	$5,069,730
Equipment & Installation		$0	$0	$0
Measurement & Verification		$878,897	$878,897	$878,897
Miscellaneous		$0	$0	$0
Subtotal		$11,587,286	$11,587,286	$11,587,286
Participant Costs				
Incremental Capital Costs	$19,606,489			$15,441,467
Incremental O&M Costs	$0			$0
Subtotal	$19,606,489			$15,441,467
Total Benefits	$38,600,782	$26,739,488	$26,739,488	$36,658,821
Total Costs	$19,606,489	$11,587,286	$38,141,189	$27,028,753
Net Benefit (Cost)	$18,994,293	$15,152,202	-$11,401,700	$9,630,068
Benefit/Cost Ratio	**1.97**	**2.31**	**0.70**	**1.36**

Input Summary and Totals

Program Assumptions:		
Lifetime (Weighted on Dth)	A	11.60 years
Net-to-Gross (Weighted on Dth)	B	94.38%
Net-to-Gross (Weighted on Incremental Capital)	C	78.76%
Program Totals:		
Participants	D	220,646
Average Net Dth/Yr Saved	E	1.8
Realization Rate (Weighted on Dth)	F	76.9%
Total Dth/Yr Saved	G	**308,761**
Utility Costs per Net Dth/Yr	H	$37.53
Net Benefit (Cost) per Gross Dth/Yr	I	$33.05
Non-Energy Benefits Adder per Gross Dth/Yr	J	$4.59
Annual Dth/$M	($1M / H)	**26,647**
Total Utility Budget	(H x G)	**$11,587,286**
Total MTRC Net Benefits with Adder	(G x I)	**$9,630,068**
Total MTRC Net Benefits without Adder	(I - J) x G	**$8,293,093**
Utility Program Cost per Net Dth Lifetime	(G / A)	**$3.24**
Participant Payback with Rebate		**3.9 years**
Participant Payback without Rebate		**5.3 years**

Avoided Cost Assumptions

In accordance with Docket No. 07A-420E, Decision No. C08-0769, paragraph 58, this section provides avoided cost assumptions which have been updated to reflect current circumstances and a comparison of these updated values to those filed in the 2009/10 DSM Plan. The Order states:

> "*58. …we find that the avoided cost data shall be updated with each annual report so that the degree of change can be assessed and this issue incorporated into the overall review of DSM incentives in 2010.*"

The updated avoided cost values provided herein represent our current estimates as of the date of this filing. Public Service originally provided avoided cost estimates in its 2009/10 DSM Plan for the time period of 2009 through 2028. The avoided costs from the Plan were used to determine the goal benefit-cost analyses filed in the Plan, as well as the actual cost-effectiveness results of the measures, programs, and portfolios completed in 2009 and reported within this Status Report.

Each avoided cost category is further described in the following sub-sections and tables. A comparison of the original and updated avoided costs is provided below. In general, these updated estimates tend to be lower than the estimates used in the Plan. Due to various lifetimes of the DSM measures and the effect of discounting future avoided costs, it is difficult to assess the impact these updates might have on the cost-effectiveness of the DSM programs and portfolio. The impacts of these updates have not yet been quantified.

Electric Avoided Costs

1. Estimated Annual Avoided Generation Capacity Costs (Source: Public Service Resource Planning)

The current assumptions for avoided capacity costs reflect updated generic capacity cost estimates used to model and evaluate 2009 All-Source Solicitation bids noted in the August 2009 compliance filing (120-Day Report) for the Company's 2007 Resource Plan (Docket No. 07A-447E). Decrease in costs due primarily to lower expected capital expenditure escalation rates.

Year	2009/2010 DSM Plan $/kW-yr	Current Assumption $/kW-yr	Increase (Decrease) $/kW-yr	Percentage Increase (Decrease) $/kW-yr
2009	$125	$127	$2	1.5%
2010	$131	$130	($2)	(1.2%)
2011	$138	$133	($5)	(3.8%)
2012	$145	$136	($9)	(6.3%)
2013	$153	$140	($13)	(8.8%)
2014	$159	$143	($15)	(9.7%)
2015	$164	$147	($17)	(10.5%)
2016	$170	$150	($19)	(11.4%)
2017	$176	$154	($22)	(12.3%)
2018	$182	$158	($24)	(13.1%)
2019	$188	$162	($26)	(13.9%)
2020	$195	$166	($29)	(14.8%)
2021	$202	$170	($31)	(15.6%)
2022	$209	$174	($34)	(16.4%)
2023	$216	$179	($37)	(17.2%)
2024	$224	$183	($40)	(18.0%)
2025	$231	$188	($44)	(18.8%)
2026	$240	$193	($47)	(19.6%)
2027	$248	$197	($51)	(20.4%)
2028	$257	$202	($54)	(21.1%)

2. Estimated Annual Avoided Transmission and Distribution Capacity Costs (Source: Public Service Resource Planning)

These values did not change from the estimates originally filed in the 2009/10 DSM Plan.

Year	2009/2010 DSM Plan $/kW-yr	Current Assumption $/kW-yr	Increase (Decrease) $/kW-yr	Percentage Increase (Decrease) $/kW-yr
2009-2028	$30.60	$30.60	$0.00	0.0%

3. Estimated Annual Avoided Marginal Energy Costs (Source: Public Service Resource Planning and Quantitative Risk Services)

The following updated marginal energy costs show a reduction in annual average cost and an increase in annual maximum cost. The decrease in average annual costs reflects a reduction in natural gas costs. The increase in maximum costs is largely reflecting new assumptions of generating resources that will be used to serve forecast peak loads.

Year	2009/2010 DSM Plan Avg $/kWh	2009/2010 DSM Plan Max $/kWh	Current Assumption Avg $/kWh	Current Assumption Max $/kWh	Increase (Decrease) Avg $/kWh	Increase (Decrease) Max $/kWh	Percentage Increase (Decrease)	Percentage Increase (Decrease)
2009	$0.067	$0.161	$0.030	$0.100	($0.037)	($0.061)	(55.6%)	(37.9%)
2010	$0.053	$0.128	$0.031	$0.070	($0.022)	($0.058)	(41.8%)	(45.2%)
2011	$0.057	$0.127	$0.029	$0.078	($0.028)	($0.048)	(49.5%)	(38.2%)
2012	$0.055	$0.124	$0.026	$0.076	($0.028)	($0.048)	(51.7%)	(38.9%)
2013	$0.058	$0.125	$0.028	$0.271	($0.030)	$0.145	(51.6%)	115.9%
2014	$0.057	$0.122	$0.029	$0.085	($0.028)	($0.037)	(49.3%)	(30.2%)
2015	$0.057	$0.124	$0.035	$0.084	($0.022)	($0.040)	(38.1%)	(32.1%)
2016	$0.056	$0.124	$0.038	$0.087	($0.018)	($0.037)	(32.0%)	(29.6%)
2017	$0.063	$0.150	$0.038	$0.097	($0.025)	($0.053)	(39.1%)	(35.5%)
2018	$0.065	$0.138	$0.041	$0.345	($0.024)	$0.208	(37.0%)	150.9%
2019	$0.070	$0.155	$0.044	$0.345	($0.026)	$0.190	(37.3%)	123.0%
2020	$0.074	$0.150	$0.045	$0.355	($0.029)	$0.205	(38.6%)	137.2%
2021	$0.078	$0.167	$0.050	$0.115	($0.028)	($0.052)	(35.4%)	(31.2%)
2022	$0.083	$0.156	$0.054	$0.415	($0.029)	$0.259	(34.7%)	166.3%
2023	$0.088	$0.153	$0.056	$0.429	($0.033)	$0.276	(37.2%)	180.1%
2024	$0.094	$0.160	$0.060	$0.440	($0.033)	$0.280	(35.8%)	175.3%
2025	$0.098	$0.160	$0.070	$0.451	($0.029)	$0.291	(29.3%)	181.8%
2026	$0.102	$0.177	$0.042	$0.128	($0.060)	($0.049)	(58.7%)	(27.5%)
2027	$0.109	$0.173	$0.048	$0.484	($0.062)	$0.311	(56.4%)	180.3%
2028	$0.114	$0.179	$0.057	$0.496	($0.058)	$0.317	(50.3%)	177.5%

4. Estimated Annual Avoided Emissions Costs (includes CO_2, SOx) (Source: Public Service Resource Planning)

The updated avoided emissions costs below reflect the latest avoided emissions estimates based on the Company's Strategist resource planning model, as well as an update to the forecast SOx costs. The difference in costs shown in the table below are mainly a result of updated inputs to the Strategist model including emission rates, expansion plans, load forecasts and fuel costs. In general, these avoided emissions costs are largely driven by avoided CO_2 emissions. With the updated inputs, the avoided emissions in the short-term are higher and then gradually decrease over time after the peak in 2013 as the Public Service system becomes less reliant on coal and utilizes more gas and renewable energy resources.

Year	2009/2010 DSM Plan Avg $/MWh	Current Assumption Avg $/MWh	Increase (Decrease)	Percentage Increase (Decrease)
2009	$0.11	$0.01	($0.10)	(91.5%)
2010	$14.67	$15.15	$0.48	3.3%
2011	$14.83	$16.32	$1.49	10.0%
2012	$16.44	$18.23	$1.79	10.9%
2013	$15.92	$20.09	$4.18	26.2%
2014	$16.74	$19.35	$2.60	15.5%
2015	$17.97	$19.95	$1.99	11.1%
2016	$19.66	$20.65	$0.99	5.0%
2017	$20.48	$21.94	$1.46	7.1%
2018	$22.40	$23.29	$0.88	3.9%
2019	$23.72	$24.92	$1.20	5.0%
2020	$25.16	$26.34	$1.18	4.7%
2021	$26.82	$28.43	$1.61	6.0%
2022	$30.55	$28.99	($1.56)	(5.1%)
2023	$33.65	$29.14	($4.51)	(13.4%)
2024	$33.97	$31.05	($2.93)	(8.6%)
2025	$33.64	$31.90	($1.75)	(5.2%)
2026	$34.95	$34.25	($0.70)	(2.0%)
2027	$37.98	$36.81	($1.17)	(3.1%)
2028	$41.23	$40.42	($0.82)	(2.0%)

Gas Avoided Costs

1. Estimated Commodity Cost of Gas (Source: Public Service Gas Resource Planning)

The following updated commodity cost for gas shows a reduction in cost primarily driven by a reduction in forecast natural gas prices.

Year	2009/2010 DSM Plan $/Dth	Current Assumption $/Dth	Increase (Decrease) $/Dth	Percentage Increase (Decrease) $/Dth
2009	$10.28	$3.41	($6.87)	(66.8%)
2010	$9.53	$4.81	($4.73)	(49.6%)
2011	$8.83	$5.17	($3.65)	(41.4%)
2012	$8.66	$5.47	($3.18)	(36.8%)
2013	$8.76	$5.72	($3.04)	(34.7%)
2014	$8.69	$6.03	($2.67)	(30.7%)
2015	$9.00	$6.48	($2.52)	(28.0%)
2016	$9.34	$6.97	($2.37)	(25.4%)
2017	$9.82	$7.28	($2.54)	(25.9%)
2018	$10.06	$7.52	($2.54)	(25.2%)
2019	$10.44	$7.81	($2.63)	(25.2%)
2020	$10.70	$8.07	($2.64)	(24.6%)
2021	$10.47	$8.28	($2.19)	(20.9%)
2022	$10.81	$8.53	($2.29)	(21.1%)
2023	$11.16	$8.76	($2.40)	(21.5%)
2024	$11.55	$8.97	($2.58)	(22.3%)
2025	$11.70	$9.21	($2.49)	(21.3%)
2026	$11.92	$9.70	($2.21)	(18.6%)
2027	$12.26	$9.97	($2.28)	(18.6%)
2028	$12.58	$10.24	($2.34)	(18.6%)

2. Estimated Avoided Variable O&M Costs (Source: Public Service Pricing and Planning)

These values did not change from the estimates originally filed in the 2009/10 DSM Plan.

Year	2009/2010 DSM Plan $/Dth	Current Assumption $/Dth	Increase (Decrease) $/Dth	Percentage Increase (Decrease) $/Dth
2009-2028	$0.05	$0.05	$0.00	0.0%

4. Estimated Annual Avoided Reservation Costs (used to estimate capacity savings – Peak Day Dth savings estimated as 1% of annual Dth savings) (Source: Public Service Gas Resource Planning)

The reduction to the forecasted annual reservation cost reflects a decrease in the CIG firm transportation rate used to estimate the type and cost of service to transport incremental gas supplies to the metropolitan Denver area.

Year	2009/2010 DSM Plan $/Dth	Current Assumption $/Dth	Increase (Decrease) $/Dth	Percentage Increase (Decrease) $/Dth
2009-2028	$57.70	$56.37	($1.33)	(2.3%)