





Demand-Side Management Annual Status Report Electric and Natural Gas Public Service Company of Colorado April 1, 2015 / Docket No. 13A-0773EG

2014





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2014 Demand-Side Management Annual Status Report

For many years, Xcel Energy has shown a commitment to its clean energy strategy through the development and deployment of energy efficiency programs. Our Company helps customers manage their energy consumption through one of the largest energy saving program portfolios in the United States. Our energy efficiency programs help customers save money, benefit all of Colorado by avoiding emissions, and reduce the Company's need to purchase or produce additional power. The program performance has continued to grow, while the DSM portfolio still remains cost-effective.

This 2014 Demand-Side Management (DSM) Annual Status Report summarizes the natural gas and electric energy efficiency achievements made in 2014. This report also explores the challenges and lessons learned from a diverse and varied portfolio of programs designed to meet customer needs.

Industry changes have forced utilities across the county to take a new look at the energy efficiency programs they offer to their customers; and as technology and standards continue to evolve, new approaches are required. These changes are helping customers use less energy and save more, but also significantly reduce energy savings opportunities that utilities can claim toward DSM goals.

Report Highlights:

- The electric and natural gas DSM portfolios both reached their overall energy savings targets. In 2014, PSCo's electric portfolio achieved energy savings at 104% of the prorated goal. This was accomplished at 88% of the filed budget. The natural gas portfolio achieved 109% of the prorated goal at 102% of budget. A total of 322,602 tons of CO₂ were avoided in 2014 through the gas and electric DSM achievements.
- Lighting programs contributed to the majority of the achievement. Lighting programs contributed over 50% of the energy savings realized in 2014. In terms of avoided emissions, the greatest contributors were Home Lighting & Recycling, New Construction, and Lighting Efficiency. Process Efficiency was also a significant contributor.
- Timing of the 2014 DSM Plan kick-off impacted results. The 2014 plan was approved May 1, 2014, and as a result the 2013 DSM Plan remained in place for the first four months of 2014. This caused a delay in launch of some new measures and products included in the 2014 DSM Plan, which had an impact on achievements. The timing of approval of the 2015/16 DSM Plan is anticipated to have similar impacts on 2015. Changing markets and building codes will also have an effect on savings opportunities in the future. The budget cap imposed starting in 2015 has placed even more focus on the cost-effectiveness of programs.
- Programs that did not meet all expectations still offered customers a robust set of options for energy
 efficiency. Some business programs did not meet individual targets, in addition some pilots had a late
 launch due to the timing of plan approval. Of the nine products/pilots that were not cost-effective in
 2014, three were concluded at the end of 2014. More time in the market will determine whether
 customers continue to take advantage of the other DSM program options, and how those levels of
 participation impact cost-effectiveness.

The achievements outlined in 2014 are a demonstration of Xcel Energy's environmental leadership and our ability to manage customer bill impacts responsibly. These achievements also exemplify the Company's commitment to customers and communities by providing a wide variety of choices to meet the diverse energy needs of Coloradans.

2014 Demand-Side Management Annual Status Report

Table of Contents

Executive Summary	1
History of the Plan	2
High-Level Achievements	
Summary of Program Changes via 60/90-Day Notice	
RFP Administrative Costs for Third-Party Implementation	
Program Achievements and Expenditures	
Program Costs by Budget Category	
Flood Victim DSM Rebate Program	
Participation Analysis	23
- · · · · · · · · · · · · · · · · · · ·	
Comphance	
ComplianceFinancial Incentive Calculations	
Financial Incentive Calculations Status Report	36
Financial Incentive Calculations Status Report Business Program	36
Financial Incentive Calculations Status Report Business Program Residential Program	36 39 52
Financial Incentive Calculations Status Report Business Program Residential Program Low-Income Program	36 39 52 58
Financial Incentive Calculations	

Executive Summary

Public Service Company of Colorado ("Public Service" or the "Company") submits this combined electric and natural gas 2014 Colorado Demand-Side Management (DSM) Annual Status Report ("Status Report") to the Colorado Public Utilities Commission ("Commission") at the conclusion of 2014. In this filing, the Company will report on its electric and natural gas DSM achievements under the 2013 DSM Plan (Proceeding No. 11A-631EG) from January 1, 2014 through April 30, 2014 and the 2014 DSM Plan (Proceeding No. 13A-0773EG) from May 1, 2014 through December 31, 2014.

The electric savings of 391.6 GWh are a significant accomplishment equaling 104% of the prorated goal of 375 GWh. Natural gas savings of 606,995 Dth was 109% of our approved goal of 558,465 Dth. To achieve these savings, the Company spent a total of \$89.4 million (\$76.9 million – electric, \$12.5 million – natural gas) on its electric and natural gas programs, less than both the approved electric budget of \$86.1 million and the approved gas budget of \$12.6 million. Below in Figure 1 and 2 are Public Service's historical achievements and expenditures for its electric and natural gas DSM Programs.

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¹ Decision No. R13-1204-I (Proceeding No. 13A-0773EG), Para. 18 on pg. 7, states: "Regarding the calculation of the net economic benefits and incentives under the electric DSM Plan for 2013 and 2014, for the year 2014, Public Service's electric energy savings goal is proposed to be pro-rated based on the portion of the year that the interim extension of the 2013 DSM Plan is in effect and the portion of the year that the 2014 DSM Plan approved here is in effect. Public Service's overall performance is to be measured at the end of 2014 and compared against its energy savings goal pro-rated as described above."

² Decision No. R13-1204-I (Proceeding No. 13A-0773EG), Para. 23 on pg. 8, states: "Public Service's overall performance is proposed to be measured at the end of calendar year 2014 and compared against its natural gas energy savings target as proposed to be prorated."

³ Decision No. R13-1204-I (Proceeding No. 13A-0773EG), Para. 15 on pg. 6, states: "...Public Service proposes that the 2014 gas and electric DSM budgets be prorated based on the length of time the interim extension of the 2013 DSM Plan remains in effect and the date that the new plan and budget take effect" and Para. 28 on pg 9, states "Based on the information contained in the Joint Statement, Public Service's request for an interim extension of its 2013 electric and natural gas DSM Plans pending a final Commission decision in this proceeding will be granted."

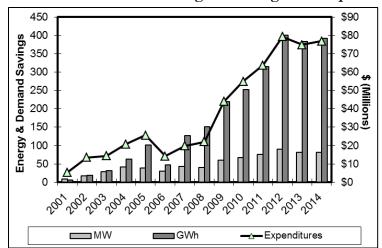
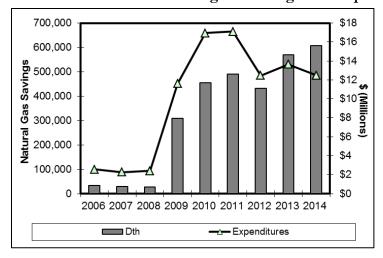


Figure 1: Historical Electric Program Savings and Expenditures





History of the Plan

Over the last seventeen years, Public Service has entered into several regulatory settlements involving demand-side management (DSM), in conjunction with its integrated resource/least-cost planning process. The following paragraphs describe those settlements, as well as legislation and decisions significant to DSM:

- In the 1996 Integrated Resource Plan Settlement Agreement (Decision No. C98-1042, Proceeding 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 No. C00-1057, Proceeding No. 00A-008E), the Company committed to use its best efforts to acquire 124 MW of cost-effective DSM resource 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 No. C05-0049, Proceeding 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 as Appropriation Therefore, was passed by the Colorado General Assemble and signed into law by Governor Ritter in 2007. It 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 public interest is served by quality of life and health of Colorado citizens and an increase in the attractiveness of Colorado as a place to live and conduct business.4

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

establish energy savings and peak demand reduction goals to be achieved by an investorowned 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 leave five percent of the utility's retail system peak demand measured in megawatts in the base year and at least 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.⁵

On June 27, 2007, the Commission issued Decision No. C07-0562, opening Proceeding 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 requirement 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, C.R.S..

⁴ § 40-3.2-101, C.R.S. ⁵ § 40-3.2-104(2)

- On October 31, 2007, Public Service filed its Application for Authorization to Implement an Enhanced Demand Side Management Program and to Revise its Demand Side Management Cost Adjustment Mechanism to Include Current Cost Recovery and Incentives. Public Service requested approval to implement an enhanced electric 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 electric DSM 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 2009/2010, 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 Proceeding No. 08A-366EG to consider the 2009/2010 DSM Plan filing and numerous parties intervened. However, prior to hearings, the majority of the Interveners, 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 the Appendix 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 2009/2010 Plan Stipulation in Decision No. R08-1243 issued on November 28, 2008. As agreed to in the Stipulation, 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 Stipulation 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.
- On July 1, 2010, Public Service filed its Verified Application for approval of its proposed 2011 DSM Plan and continuation of the terms of the Stipulation and Settlement Agreement entered into and approved by the Commission in Proceeding No. 08A-366EG, except to the extent that those terms are specific to the Company's 2009/2010 Biennial DSM Plan in Proceeding No. 10A-471EG. On December 16, 2010, the Stipulation and Settlement Agreement was approved by the Commission in Decision No. R10-1336.
- On August 10, 2010 Public Service filed a Verified Application for Approval of a Number of Strategic Issues relating to its DSM Plan, including long term electric energy savings goals and incentives in Proceeding No. 10A-554EG. The Application proposed new electric savings goals along with a new electric incentive mechanism. In addition, the application requested various other changes to the plan. Following the hearing in that proceeding, the Commission issued on April 26, 2011, Decision

- No. C11-0442, approving Public Service's Application with modifications. The Commission then issued Decision No. C11-0645 on June 14, 2011, addressing Public Service's Application for Rehearing, Reargument, or Reconsideration and granting the Company's motion for a one-month extension to file it 2012/2013 DSM Plan to August 1, 2011.
- On August 1, 2011 the Company filed a combined electric and natural gas 2012/2013 Demand-Side Management Plan in Proceeding No. 11A-631EG. On November 10, 2011 a Stipulation and Settlement Agreement along with a Joint Motion to Approve Stipulation Agreement were filed by Public Service. The Stipulation and Settlement Agreement was approved by the Administrative Law Judge by Decision No. R-11-1326 issued on December 9, 2011 without significant modification. No exceptions were filed, and, therefore, Decision No. R11-1326 became the final decision of the commission on December 29, 2011. It was ordered by the ALJ that within 60 days of the effective date of the Recommended Decision, Public Service shall file an update of its DSM Plan reflecting changes approved with approval of the Stipulation and Settlement Agreement, together with an erratum correcting errors. On February 28, 2012, Public Service filed the updated 2012/2013 DSM Plan.
- On June 17, 2013 the Company filed a Verified Application for Approval of a Number Strategic Issues Relating to its DSM Plan (Proceeding No. 13A-0686EG), including proposed new electric savings goals along with a new electric incentive mechanism, and approval for new DSM products. Following the hearing in that proceeding, the Commission issued on July 1, 2014, Decision No. C14-0731, approving Public Service's Application with modifications. The Commission then issued Decision No. C14-0997 on August 13, 2014, addressing Public Service's Application for Rehearing, Reargument, or Reconsideration.
- On July 1, 2013 the Company filed a combined electric and natural gas 2014 DSM Plan in Proceeding No. 13A-0773EG. On September 19, 2013, the Company filed a Joint Statement of Clarification Regarding the Interim Extension of the Company's 2013 Electric and Natural Gas DSM Plan, Pending Consideration of the Company's Proposed 2014 DSM Plan ("Joint Statement"). The purpose of the Joint Statement was to clarify the effect of the interim extension of the Company's 2013 DSM Plan on the energy savings goals and budgets during calendar year 2014, as well as the calculation of net economic benefits and associated incentives under the electric 2013 DSM Plan and 2014 DSM Plan in calendar year 2014, the calculation of lost revenues and gas bonus under the natural gas 2013 DSM Plan and 2014 DSM Plan in calendar year 2014, and the operation of the DSM tracker during 2014, among other matters. On September 27, 2013, a Recommended Decision was issued (Decision No. R13-1204-1) granting the proposed interim extension of the 2013 DSM Plan consistent with the terms set forth in the Joint Statement. On October 29, 2013 a Stipulation and Settlement Agreement along with a Joint Motion to Approve Stipulation Agreement were filed by Public Service. The Stipulation and Settlement Agreement was approved by the Administrative Law Judge by Decision No. R14-0389 issued on April 11, 2014 without significant modification following the hearing in the proceeding. No exceptions were filed, and, therefore, Decision No. R14-0389 became the final decision of the commission on May 1, 2014. On

May 22, 2014, Public Service filed the updated 2014 DSM Plan, reflecting changes approved with approval of the Stipulation and Settlement Agreement.

High-Level Achievements

In 2014, Public Service's electric portfolio achieved demand savings of 80,957 net gen. kW (94% of filed target) and energy savings of 391,615,207 net gen. kWh (101% of filed target) at a cost of \$76,962,284 (88% of filed budget). The natural gas portfolio achieved savings of 606,995 Dth (97% of filed target) at a cost of \$12,505,018 (102% of budget).

Table 1a below shows the Company's electric portfolio achievements, including Modified Total Resource Cost (MTRC) test ratio results at the program level.

Table 1a: High-Level Electric Targets and Achievements for 2014

2014 Programs	Electric Budget	Electric Expenditures (Actual)	Gen. kW Target	Net Gen. Realized kW	Net Gen. kWh Target	Net Gen. Realized kWh	MTRC Target	MTRC (Actual)
Business	\$ 47,347,362	\$38,441,547	41,057	34,577	243,705,215	210,899,234	1.71	1.63
Residential	\$ 31,189,213	\$30,560,215	36,345	38,311	99,744,869	144,243,166	2.76	2.32
Low-Income	\$ 2,941,590	\$3,168,007	1,029	869	8,169,590	6,807,840	1.65	1.16
Indirect	\$ 6,285,330	\$4,792,515	8,189	7,200	34,479,365	29,664,967	n/a	n/a
2014 TOTAL	\$ 87,763,495	\$76,962,284	86,619	80,957	386,099,040	391,615,207	1.90	1.89

Table 1b below shows the Company's natural gas portfolio achievements, including MTRC test ratio results at the program level.

Table 1b: High-Level Natural Gas Targets and Achievements for 2014

2014 Programs	Natural Gas Budget	Natural Gas Expenditures (Actual)	Dth Target	Net. Realized Dth	MTRC Target	MTRC (Actual)
Business	\$1,645,000	\$1,465,635	128,224	184,688	1.48	1.94
Residential	\$5,328,687	\$6,080,016	244,306	255,633	1.50	1.92
Low-Income	\$3,307,421	\$3,323,468	86,272	74,884	1.79	1.48
Indirect	\$2,024,849	\$1,635,899	164,741	91,789	0.54	0.48
2014 TOTAL	\$12,305,957	\$12,505,018	623,543	606,995	1.49	1.76

These achievements shown in Tables 1a and 1b have provided electric net benefits of approximately \$158.6 million and natural gas net benefits of \$24.6 million. Based on these achievements and net benefits, the Company has calculated an associated financial incentive of \$12.9 million for its electric portfolio and \$3.7 million for its natural gas portfolio. This includes \$3,126,255 for the incentive and an acknowledgement of lost revenues (ALR) associated with gas DSM programs of \$543,863. The DSM portfolio's overall costs and benefits, as determined by the MTRC test, along with the Company's lost revenue and incentive resulting from these achievements, is shown in Table 1c below. Additional incentive calculation details are shown in the Financial Incentive Calculation section of this Report).

Table 1c: MTRC Test Results with Financial Incentive

	Electric	Gas
MTRC Benefits w/Adder	\$337,648,498	\$57,217,386
MTRC Costs	\$178,967,414	\$24,686,973
MTRC Ratio	1.89	1.76
MTRC Benefits w/Adder	\$337,648,498	\$57,217,386
Incentive	\$12,905,183	\$3,126,255
Acknowledgement of Lost Revenue (ALR)	n/a	\$543,863
MTRC Costs w/Incentive & ALR	\$191,872,597	\$36,200,531
MTRC Ratio w/Incentive & ALR	1.76	1.58

Some of the products that are part of the Company's portfolio did not pass the MTRC test in 2014. Three of those products—Segment Efficiency, Standard Offer, and Pool Pumps—were discontinued at the end of 2014. While each of the products listed below are discussed in more detail in the 2014 Status Report section of this report, below is a bulleted summary of the primary reason for the failing of MTRC test ratios (gas and/or electric), and brief discussion of plans to improve the ratios in 2015 (for those products that continue to be a part of the portfolio in 2015).

Business Program

- Segment Efficiency Electric (0.52 MTRC)
 - o While the studies conducted in 2014 identified significant savings potential, capital-intensive measures were not implemented; customers chose to implement lower cost measures with short payback times.
 - o The product offering has been discontinued at the end of 2014.
- Standard Offer Electric (0.94 MTRC)
 - O While no expenditures or impacts were forecasted in 2014, a few projects were still undergoing required M&V, those costs were greater than the remaining impacts that were captured, leading to the product's non-cost-effectiveness.
 - o The product offering was discontinued at the end of 2013, with remaining product measurement and verification being completed in 2014.

Residential Program

- High Efficiency Air Conditioning Electric (0.91 MTRC)
 - O Customers participating in the product face high incremental costs to move beyond the baseline units.
 - o Incremental capital costs make up half of the costs of the product.

<u>Efforts to improve for 2015:</u> The Company will closely monitor the costs for the product that are within our control—administrative expenses—to ensure cost-effectiveness to the greater extent possible.

- Home Performance with ENERGY STAR Electric (0.95 MTRC)
 - o Incremental capital costs were higher than forecasted, which decreased costeffectiveness.

Efforts to improve for 2015: The Company will increase efforts to promote cooling measures with additional energy savings.

- Insulation Electric & Natural Gas (0.63 and 0.76 MTRC)
 - o The product significantly under-achieved its energy savings targets due to lower than forecasted participation.
 - o Administrative expenditures were higher than forecasted.

Efforts to improve for 2015: The Company has directed a small portion of advertising dollars for a targeted direct mail and email effort to increase participation, as well as offering an increase in the customer rebate. The Company will also closely monitor the appropriate split of administrative expenditures between each fuel type.

- Pool Pumps Electric (0.43 MTRC)
 - o The product offering has been discontinued at the end of 2014, per 90-Day Notice posted in September 2014.
- Water Heater Rebate Electric & Natural Gas (0.97 and 0.69 MTRC)
 - o The product was nearly cost-effective for electric in 2014, with actual performance being better than forecasted in the DSM Plan.
 - O The product's actual performance for gas was better than forecasted in the DSM Plan and, although it was not cost-effective, the Company had anticipated that outcome when building the DSM Plan.

Efforts to improve for 2015: Although the Company planned to discontinue rebates for 0.62 and 0.65 Energy Factor (EF) storage tank water heaters in 2014, this transition did not occur until the 2014 DSM Plan commenced on May 1, 2014. In 2015, only the most efficient units (0.67 EF standard tank, 0.90 EF tankless, and electric heat pump water heaters) will be offered. Nonetheless, the product is not expected to be cost-effective in 2015—as forecasted in the DSM Plan. The Company will closely monitor product expenditures.

Low-Income Program

- Multi-Family Weatherization Natural Gas (0.80 MTRC)
 - O Higher-cost measures, such as boiler replacements in bundled proposals, increased the product's cost per Dekatherm, which reduced cost-effectiveness.

Efforts to improve for 2015: The Company shifted a higher proportion of multi-family expenditures towards electric measures, while maintaining the natural gas budget for serving low-income multi-family residents.

- Non-Profit Energy Efficiency Natural Gas (0.75 MTRC)
 - Higher-cost measures, such as boiler replacements, distributed hot water, and windows increased projects' average cost per Dekatherm, which reduced costeffectiveness.
 - Holistic project bundles, sometimes including lower net-benefit measures like boilers, were necessary to motivate some low-income facilities to move forward with comprehensive building retrofits.

<u>Efforts to improve for 2015</u>: The Company and third-party implementer will seek to integrate lower-cost natural gas measures such as showerheads and aerators into project bundles.

- Single Family Weatherization Electric (0.90 MTRC)
 - Higher-cost refrigerator replacement measures reduced the average projects' cost-effectiveness.
 - O A lower than forecasted proportion of electric savings came from measures such as ceiling and wall insulation, which are more cost-effective.

Efforts to improve for 2015: The Company aims to serve more electrically heated homes to improve electric savings.

Indirect Products & Services

- Energy Feedback Business Pilot Electric (0.54)
 - o The energy savings target forecasted in the Plan assumed twelve months of pilot operation. The pilot did not launch with customers until late June 2014 and, due to the ramp up time needed, did not achieve the electric savings targets.

Efforts to improve for 2015: The Company, via the third-party implementer, has planned for activities in 2015 to help improve the energy savings levels such as: layered email to accompany the printed Business Energy reports and including collateral pieces with the reports to help customers encourage their employees to save energy.

Summary of Program Changes via 60/90-Day Notice

In recognition of the need to afford the Company discretion to make changes to the Plan in order achieve the greatest level of energy savings, the 2010 Stipulation and Settlement Agreement provided for a 60/90-Day Notice process to advise interested stakeholders of changes to the Plan. A 60-Day Notice is required for any proposal to add a new DSM product, reduce rebate levels, adopt new or discontinue existing measures, or change technical assumptions or eligibility requirements. DSM roundtable participants have 30 days from the time of the Notice date to provide comments to Public Service on the proposed changes. The Company will have 30 days thereafter to consider comments. A 90-Day Notice is required for any product discontinuation.

In 2014, the Company added several new measures via 60-Day Notice—LED parking garage fixtures and LED troffer fixtures for Lighting Efficiency (Business), Western Cooling

Control (WCC) device for High Efficiency Air Conditioning (A/C) (Residential) and energy-efficient showerheads and aerators for Single-Family Weatherization (Low-Income). The Company initiated efforts to launch two new pilots—the Multifamily Buildings Pilot and the Smart Thermostat Pilot; and retired one offering, Pool Pumps (Residential), which had consistently under-performed in recent years in terms of energy savings and participation, and was found to not be cost-effective. The Company also made quality assurance improvements to its <u>Insulation</u> Rebate product (Residential) to require air sealing, blower door testing, and use of a Building Performance Institute certified contractors. A detailed description of the changes made via 60/90-Day Notice can be found on the Company's Colorado DSM

webpage: http://www.xcelenergy.com/Company/Rates & Regulations/Regulatory Filings/Colorado Demand-Side Management.

The 60/90-Day Notices that were completed during 2014 are listed below in Table 2.⁶ Additional detail on the changes can be found in the 2014 Status Report section of this report, within each DSM product summary.

Table 2: 60/90-Day Notices in 2014

Product	Notice Date	Notice Type						
Business Program								
Lighting Efficiency	1/24/2014 &	60-Day	New Measures (LED Parking Garage					
	11/26/2014		and Troffer fixtures)					
Residential Program								
Heating System Rebates	5/6/2014	60-Day	Technical Assumption Updates					
Home Performance w/ENERGY STAR®	5/21/2014	60-Day	Technical Assumption Updates					
ENERGY STAR New Homes	6/26/2014	60-Day	Technical Assumption Updates					
High Efficiency A/C	7/30/2014	60-Day	New Measure (WCC)					
School Kits	9/16/2014	60-Day	Technical Assumption Updates					
Pool Pumps	9/22/2014	90-Day	Product Retirement					
Low-Income Program								
Single-Family	9/12/2014	60-Day	New Measures (Showerheads and					
Weatherization			Aerators)					
Energy Savings Kits	9/16/2014	60-Day	Technical Assumption Updates					
Indirect Products & Services	3							
Multifamily Building Pilot	8/1/2014	60-Day	New Pilot					
Smart Thermostat Pilot	8/1/2014	60-Day	New Pilot					

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⁶ The Company filed three 60-Day Notices at the end of 2014 that impact 2015 and will be included in the 2015 DSM Annual Status Report.

RFP Administrative Costs for Third-Party Implementation

As required in Decision No. C11-0442 (Proceeding No. 10A-554EG),⁷ the Company continues to track administrative costs incurred for conducting requests for proposals (RFPs), shown in Table 3 below.

Table 3: RFP Administrative Costs in 2014

Product		2014 Expenditures
ENERGY STAR New Homes		\$4,180
	TOTAL	\$4,180

Page 13 of the 2014 DSM Plan indicated that the Company anticipated releasing an RFP for the Refrigerator Recycling product in 2014; however, that procurement was delayed due to known cost savings that could be achieved through contract extension. The Company does anticipate releasing the RFP in 2015 in order to procure additional services under the contract.

Program Achievements and Expenditures

Tables 4a and 5a below provide the electric and natural gas savings targets, budgets, and forecasted cost-effectiveness approved in the 2014 DSM Plan. Tables 4b and 5b provide the Company's 2014 achievements, actual expenditures, and cost-effectiveness results by product.⁸

⁷ Paragraph 81 of Decision No. C11-0442 in Proceeding No. 10A-554EG, pages 33, states that "...Public Service is directed to quantify and track any additional costs it incurs in the use of third-party DSM providers." The directive is mentioned again on page 52 of the Order.

⁸ Decision No. R14-0389 (Proceeding No. 13A-0773EG), Para. 16, pg. 7, states "...Public Service's tracking of expenditures and revenue collection under its natural gas DSM program were not to be affected by the extension."

Table 4a: 2014 Electric Program Targets and Budgets

2014	Electric Participants	Electric Budget	Net Generator kW	Net Generator kWh	Electric MTRC Test Ratio
Business Program	1 articipants	Electric Budget	K W	KWII	1 CSt Hutlo
Commercial Refrigeration Efficiency	1,890	\$2,149,734	994	9,257,997	1.49
Compressed Air Efficiency	124	\$770,990	479	2,465,669	1.36
Computer Efficiency	2,919	\$536,001	569	5,342,267	1.77
Cooling Efficiency	745	\$3,180,282	3,426	8,686,056	1.85
Custom Efficiency	34	\$1,791,404	1,266	8,894,756	1.80
Data Center Efficiency	16	\$1,115,347	716	7,385,370	2.28
Energy Management Systems	39	\$1,089,255	173	7,344,207	1.51
Heating Efficiency					
Lighting Efficiency	1,584	\$10,679,783	12,457	75,288,784	1.94
Motor & Drive Efficiency	843	\$4,494,467	2,836	16,967,161	1.70
New Construction	88	\$9,571,681	9,690	32,720,004	1.36
Process Efficiency	12	\$2,623,240	1,464	22,239,875	2.15
Recommissioning	112	\$1,130,264	802	6,692,473	1.33
Segment Efficiency	54	\$830,569	534	4,190,451	1.38
Self-Directed Custom Efficiency Small Business Lighting	12 525	\$1,382,803	1,190 4,459	8,890,332	1.77
Standard Offer	323	\$5,994,148 \$7,395	4,439	27,339,812	1.62
Business Program Total	8,997	\$47,347,362	41,057	243,705,215	1.71
Business i rogram Total	0,997	\$47,347,302	41,037	243,703,213	1./1
Residential Program					
ENERGY STAR New Homes	1,924	\$631,958	429	1,689,054	1.38
Evaporative Cooling Rebate	4,525	\$2,436,861	6,335	3,927,304	7.93
Heating System Rebate	2,500	\$306,833	186	2,371,209	1.33
High Efficiency Air Conditioning	3,651	\$2,780,206	2,220	2,000,075	0.93
Home Lighting & Recycling	838,750	\$8,379,231	11,367	76,523,940	2.97
Home Performance with ENERGY STAR	497	\$230,400	132	295,245	1.14
Insulation Rebate	1,400	\$378,696	710	821,218	1.08
Pool Pump	1,265	\$704,843	793	2,196,769	1.33
Refrigerator Recycling	8,000	\$1,307,459	481	4,214,464	1.63
School Education Kits	38,500	\$1,539,289	423	4,705,069	1.89
Energy Efficiency Showerhead	2,255	\$33,980	0	696,290	16.91
Water Heater Rebate	50	\$39,288	9	76,474	0.63
Residential Program Energy Efficiency Total	903,317	\$18,769,044	23,083	99,517,110	3.11
Load Management Program - Residential Saver's Switch	12,000	\$12,420,170	13,261	227,759	2.00
Residential Program Total	915,317	\$31,189,214	36,345	99,744,869	2.76
Low-Income Program					
Energy Savings Kit	15,000	\$332,475	174	1,932,191	3.33
Multi-Family Weatherization	14	\$387,505	111	1,266,863	1.48
Non-Profit Energy Efficiency	25	\$934,524	500	1,777,129	1.63
Single-Family Weatherization	2,478	\$1,287,086	244	3,193,407	1.32
Low-Income Program Total	17,517	\$2,941,590	1,029	8,169,590	1.65
	,		,	, ,	
Indirect Products & Services					
Education/Market Transformation					
Business Energy Analysis	400	\$980,880	0	0	
Community Energy Efficiency Planning Pilot	0	\$25,800	0	0	
Consumer Education - Business	1,385	\$153,765	0	0	
Consumer Education - Residential	34,000	\$1,232,674	0	0	
Energy Efficiency Financing	1,500	\$60,000	0	0	
Residential Home Energy Audit	0	\$610,664	0	0	
Education/Market Transformation Total	37,285	\$3,063,783	0	0	
Planning and Research					
DSM Planning & Administration	0	\$401,877	0	0	
Program Evaluations	0	\$247,080	0	0	
Measurement & Verification	0	\$13,175	0	0	
DSM Market Research	0	\$290,688	0	0	
DSM Product Development	0	\$1,197,238	0	0	
Energy Feedback Pilot	117,642	\$760,817	7,610	28,994,680	3.00
Energy Feedback Pilot - Business	11,422	\$255,754	579	5,484,685	1.18
In-Home Smart Device Pilot	0	\$50,698	0	0	
Electric Vehicle Charging Station Pilot	0	\$4,220	0	0	
DSM Product Development Total	129,064	\$2,268,727	8,189	34,479,365	1.14
Planning and Research Total	129,064	\$3,221,547	8,189	34,479,365	0.80
Indirect Products & Services Total	166,349	\$6,285,330	8,189	34,479,365	0.45
PORTFOLIO TOTAL	1,108,180	\$87,763,495	86,619	386,099,040	1.90

Table 4b: 2014 Electric Program Achievements and Expenditures

2014	Electric Expenditures	Net Generator kW	Net Generator kWh	Electric MTRO Test Ratio
Business Program	1			
Commercial Refrigeration Efficiency	\$1,090,816	550	5,532,444	1.1
Compressed Air Efficiency	\$561,783	442	3,190,071	1.9
Computer Efficiency	\$711,975	1,065	7,850,285	1.6
Cooling Efficiency	\$2,094,968	1,455	3,984,812	4.5
Custom Efficiency	\$1,631,570	478	3,912,244	1.0
Data Center Efficiency	\$1,155,750	762	10,872,596	1.3
Energy Management Systems	\$1,110,915	49	8,301,365	1.7
Heating Efficiency				
Lighting Efficiency	\$10,975,466	12,208	71,534,278	1.8
Motor & Drive Efficiency	\$3,361,865	2,269	14,310,627	1.9
New Construction	\$7,664,054	8,444	34,134,139	1.4
Process Efficiency	\$3,442,173	3,420	26,002,866	2.2
Recommissioning	\$696,358	305	5,156,987	1.8
Segment Efficiency	\$202,585	24	117,806	0.5
Self-Directed Custom Efficiency	\$397,851	507	2,414,247	2.7
Small Business Lighting	\$3,015,630	2,207	11,626,207	1.4
Standard Offer	\$327,789	394	1,958,258	0.9
Business Program Total	\$38,441,547	34,577	210,899,234	1.6
Residential Program				
ENERGY STAR New Homes	\$782,041	990	2,184,822	2.2
Evaporative Cooling Rebates	\$2,360,472	4,785	2,987,263	5.7
Heating System Rebates	\$224,936	127	1,551,556	1.2
High Efficiency Air Conditioning	\$3,270,423	3,163	2,483,335	0.9
Home Lighting & Recycling	\$8,982,760	16,722	123,263,649	2.4
Home Performance with ENERGY STAR	\$184,432	167	374,182	0.9
Insulation	\$79,218	128	145,201	0.0
Pool Pump	\$264,071	67	184,116	0.4
Refrigerator Recycling	\$1,083,658	539	4,723,831	2.0
School Education Kits	\$1,392,049	435	4,911,161	2.0
Energy Efficient Showerhead	\$46,459	0	1,075,530	15.4
Water Heater Rebate	\$43,670	17	148,757	0.9
Residential Program Energy Efficiency Total	\$18,714,190	27,139	144,033,403	2.4
Load Management Program - Residential Saver's Switch	\$11,846,025	11,172	209,763	1.8
Residential Program Total	\$30,560,215	38,311	144,243,166	2.3
Low-Income Program				
Energy Savings Kit	\$197,244	111	1,182,969	3.4
Multi-Family Weatherization	\$521,568	320	1,933,055	1.3
Non-Profit Energy Efficiency	\$812,713	171	1,342,438	1.0
Single-Family Weatherization	\$1,636,483	268	2,349,378	0.9
Low-Income Program Total	\$3,168,007	869	6,807,840	1.
Indirect Products & Services				
Education/Market Transformation				
Business Energy Analysis	\$488,812	0	0	
Community Energy Efficiency Planning Pilot	\$93,192	0	0	
Consumer Education - Business	\$138,727	0	0	
Consumer Education - Residential	\$1,109,571	0	0	
Energy Efficiency Financing	\$43,134	0	0	
Residential Home Energy Audit	\$506,326	0	0	
Education/Market Transformation Total	\$2,379,761	0	0	
Planning and Research				
DSM Planning & Administration	\$508,913	0	0	
Program Evaluations	\$115,185	0	0	
Measurement & Verification	\$5,651	0	0	
DSM Market Research	\$227,849	0	0	
DSM Product Development	\$557,619	0	0	
Energy Feedback Pilot	\$780,403	7,200	27,807,492	2.0
Energy Feedback Pilot - Business	\$134,292	0	1,857,475	0.5
In-Home Smart Device Pilot	\$49,756	0	0	
Electric Vehicle Charging Station Pilot	\$15,081	0	0	<u> </u>
Multifamily Building	\$2,729	0	0	
Smart Thermostat	\$15,283	0	0	
Smart Thermostat - DR	-\$8	0	0	
DSM Product Development Total	\$1,555,155	7,200	29,664,967	1.4
Planning and Research Total	\$2,412,753	7,200	29,664,967	0.9
		. ,= 50	. , ,	31,
Indirect Products & Services Total	\$4,792,515	7,200	29.664.967	2.0
Indirect Products & Services Total	\$4,792,515	7,200	29,664,967	0.3

Table 5a: 2014 Natural Gas Program Targets and Budgets

2014	Gas Participants	Gas Budget	Net Annual Dth Savings	Annual Dth/\$M	Gas MTRC Test Net Benefits	Gas MTRC Test Ratio
Business Program	1.220	\$50.00A		127.200	2012.004	44.45
Commercial Refrigeration Efficiency Compressed Air Efficiency	1,220	\$50,234	6,892	137,209	\$812,806	11.67
Computer Efficiency						
Cooling Efficiency						
Custom Efficiency	5	\$144,633	5,519	38,161	\$128,225	1.47
Data Center Efficiency						
Energy Management Systems	10	\$32,232		91,835	\$126,190	2.60
Heating Efficiency	202	\$612,121	25,354	41,420	\$203,299	1.11
Lighting Efficiency						
Motor & Drive Efficiency New Construction	56	\$761,654	82,049	107,724	\$1,915,270	1.43
Process Efficiency	30	₽701,05 1	02,047	107,724	91,713,270	1.13
Recommissioning	16	\$16,361	2,509	153,348	\$53,267	2.63
Segment Efficiency	13	\$26,766	2,940	109,858	\$81,793	1.75
Self-Directed Custom Efficiency						
Small Business Lighting						
Standard Offer	0	\$1,000	0	0		
Business Program Energy Efficiency Total	1,522	\$1,645,000	128,224	77,948	\$3,320,850	1.48
Residential Program						
ENERGY STAR New Homes	2,544	\$2,546,788	95,294	37,417	\$2,361,788	1.38
Evaporative Cooling Rebate	,	" /	,	//	- / /	
Heating System Rebate	4,950	\$711,142	38,645	54,342	-\$906,566	0.78
High Efficiency Air Conditioning						
Home Lighting & Recycling						
Home Performance with ENERGY STAR	500	\$181,506	,	46,494	\$32,827	1.06
Insulation Rebate	4,000	\$860,363	47,640	55,372	\$88,871	1.03
Pool Pump Refrigerator Recycling						
School Education Kits	38,500	\$617,815	30,131	48,770	\$4,017,797	6.10
Energy Efficiency Showerhead	18,245	\$252,620		80,520	\$2,994,380	9.85
Water Heater Rebate	1,200	\$158,453		24,084	-\$432,809	0.42
Residential Program Energy Efficiency Total	69,939	\$5,328,687	244,306	45,847	\$8,156,288	1.50
Low-Income Program						
Energy Savings Kit	15,000	\$221,692	12,472	56,258	\$1,692,004	6.93
Multi-Family Weatherization	12	\$376,747		18,017	\$448	1.00
Non-Profit Energy Efficiency Single-Family Weatherization	25	\$541,404		12,875	\$354	1.00
Low-Income Program Total	2,478 17,515	\$2,167,578 \$3,307,421	60,042 86,272	27,700 26,084	\$2,925,771 \$4,618,578	1.74 1.79
Indirect Products & Services						
Education/Market Transformation	100	2120.21				
Business Energy Analysis	100	\$138,316	0	0		
Community Energy Efficiency Planning Pilot Consumer Education - Business	593	\$4,200 \$50,002		0		
Consumer Education - Residential	34,000	\$250,557		0		
Energy Efficiency Financing	750	\$60,000		0		
Residential Home Energy Audit	0	\$520,099	0	0		
Education/Market Transformation Total	35,443	\$1,023,174				
Planning and Research		#440.004		^		
DSM Planning & Administration Program Evaluations	0	\$110,004 \$204,580		0		
Measurement & Verification	0	\$3,188		0		
DSM Market Research	0	\$164,143		0		
DSM Product Development	0	\$203,979		0		
Energy Feedback Pilot	118,574	\$235,016		601,374	\$462,845	2.97
Energy Feedback Pilot - Business	11,422	\$80,765	23,408	289,828	\$34,658	1.43
In-Home Smart Device Pilot	0	\$0				
Electric Vehicle Charging Station Pilot	0	\$0				
DSM Product Development Total	129,996	\$519,760		316,955	\$293,524	1.56
Planning and Research Total Indirect Products & Services Total	129,996 165,439	\$1,001,675 \$2,024,849		164,465 81,359	-\$188,391 -\$898,965	0.81
monett i roddets & Stiviets i star	103,439	Ψ 2, U 24, 049	104,/41	01,339	-9070,705	0.34
PORTFOLIO TOTAL	254,415	\$12,305,957	623,543	50,670	\$15,196,752	1.49

Table 5b: 2014 Natural Gas Program Achievements and Expenditures

	Gas	Net Annual	Annual	Gas MTRC Test	Gas MTRC
2014	Expenditures	Dth Savings	Dth/\$M	Net Benefits	Test Ratio
Business Program	•		,		
Commercial Refrigeration Efficiency	\$7,455	1,433	192,248	\$243,954	24.55
Compressed Air Efficiency					
Computer Efficiency					
Cooling Efficiency	202.626	44.000	40400	24.072.247	• 00
Custom Efficiency	\$82,626	16,098	194,827	\$1,062,346	2.90
Data Center Efficiency Energy Management Systems	\$40,843	8,599	210,545	\$313,816	1.82
Heating Efficiency	\$526,047	17,170	32,639	\$204,884	1.10
Lighting Efficiency	9320,017	17,170	32,037	\$201,001	1.10
Motor & Drive Efficiency					
New Construction	\$776,962	140,136	180,364	\$5,463,920	1.99
Process Efficiency	\$258			-\$258	
Recommissioning	\$28,678	1,201	41,865	\$30,019	1.84
Segment Efficiency	\$424	0	0	-\$673	
Self-Directed Custom Efficiency					
Small Business Lighting			22.272	24.220	
Standard Offer Business Program Total	\$2,342	52	22,273	-\$1,329	0.75
Business Program Total	\$1,465,635	184,688	126,012	\$7,316,679	1.94
Residential Program	+				
ENERGY STAR New Homes	\$3,766,073	97,473	25,882	\$838,347	1.0
Evaporative Cooling Rebates	42,700,073	21,413	23,002	90,00,047	1.03
Heating System Rebates	\$648,132	44,062	67,983	\$1,716,165	1.89
High Efficiency Air Conditioning	,	,	,	. ,,	
Home Lighting & Recycling					
Home Performance with ENERGY STAR	\$325,130	15,218	46,806	\$91,958	1.03
Insulation	\$284,748	16,976	59,618	-\$417,083	0.7
Pool Pump					
Refrigerator Recycling					
School Education Kits	\$430,699	33,104	76,862	\$5,541,011	10.4
Energy Efficient Showerhead Water Heater Rebate	\$411,021 \$214,213	42,360	103,060	\$7,430,649 -\$241,430	0.69
Residential Program Total	\$6,080,016		30,060 42,045	\$14,959,617	1.92
110010011111111111111111111111111111111	ψ0,000,010	233,033	12,013	ψ11,757,017	1.72
Low-Income Program					
Energy Savings Kit	\$92,284	8,721	94,506	\$1,524,656	12.82
Multi-Family Weatherization	\$617,666	10,716	17,349	-\$324,243	0.80
Non-Profit Energy Efficiency	\$510,316	3,700	7,249	-\$251,332	0.75
Single-Family Weatherization	\$2,103,202	51,748	24,604	\$2,334,042	1.5
Low-Income Program Total	\$3,323,468	74,884	22,532	\$3,283,123	1.48
Indirect Products & Services					
Education/Market Transformation	221010	0	0		
Business Energy Analysis Community Energy Efficiency Planning Pilot	\$34,948 \$15,816	0	0		
Community Energy Efficiency Planning Pilot Consumer Education - Business	\$15,816 \$48,034	0	0		
Consumer Education - Residential	\$196,847		0		
Energy Efficiency Financing	\$29,938		0		
Residential Home Energy Audit	\$486,897		0		
Education/Market Transformation Total	\$812,481		0		
Planning and Research					
DSM Planning & Administration	\$127,160	0	0		
Program Evaluations	\$106,163		0		
Measurement & Verification	\$1,397	0	0		
DSM Market Research	\$158,460		0		
		0	0		
DSM Product Development	\$182,552			£200 202	2.4
DSM Product Development Energy Feedback Pilot	\$195,336		469,905	\$289,393	
DSM Product Development Energy Feedback Pilot Energy Feedback Pilot - Business		91,789 0	469,905	\$209,393	
DSM Product Development Energy Feedback Pilot Energy Feedback Pilot - Business In-Home Smart Device Pilot	\$195,336			\$207,373	
DSM Product Development Energy Feedback Pilot Energy Feedback Pilot - Business In-Home Smart Device Pilot Electric Vehicle Charging Station Pilot	\$195,336 \$46,697	0	0	\$207,373	
DSM Product Development Energy Feedback Pilot Energy Feedback Pilot - Business In-Home Smart Device Pilot Electric Vehicle Charging Station Pilot Multifamily Building	\$195,336 \$46,697 \$1,340	0	0	\$207,373	
DSM Product Development Energy Feedback Pilot Energy Feedback Pilot - Business In-Home Smart Device Pilot Electric Vehicle Charging Station Pilot Multifamily Building Smart Thermostat	\$195,336 \$46,697	0	0	\$207,373	
DSM Product Development Energy Feedback Pilot Energy Feedback Pilot - Business In-Home Smart Device Pilot Electric Vehicle Charging Station Pilot Multifamily Building Smart Thermostat Smart Thermostat - DR	\$195,336 \$46,697 \$1,340 \$4,314	0	0 0		111
DSM Product Development Energy Feedback Pilot Energy Feedback Pilot - Business In-Home Smart Device Pilot Electric Vehicle Charging Station Pilot Multifamily Building Smart Thermostat Smart Thermostat - DR DSM Product Development Total	\$195,336 \$46,697 \$1,340 \$4,314 \$430,238	0 0 0 91,789	0 0 0 213,345	\$289,393	
DSM Product Development Energy Feedback Pilot Energy Feedback Pilot - Business In-Home Smart Device Pilot Electric Vehicle Charging Station Pilot Multifamily Building Smart Thermostat Smart Thermostat - DR DSM Product Development Total Planning and Research Total	\$195,336 \$46,697 \$1,340 \$4,314 \$430,238 \$823,418	0 0 0 91,789 91,789	0 0 0 213,345 111,473	\$289,393 -\$338,690	1.12 0.55 0.41
DSM Product Development Energy Feedback Pilot Energy Feedback Pilot - Business In-Home Smart Device Pilot Electric Vehicle Charging Station Pilot Multifamily Building Smart Thermostat Smart Thermostat - DR DSM Product Development Total	\$195,336 \$46,697 \$1,340 \$4,314 \$430,238	0 0 0 91,789	0 0 0 213,345	\$289,393	

Table 6 below provides the $\rm CO_2$ and $\rm SO_X$ emissions avoided for 2014 and cumulatively over the lifetime for each product.

Table 6: 2014 Emissions Avoided

		Annı	ıal		Cumulative over Lifetime			
		Tons CO2		lbs Sox		Tons CO2		lbs Sox
2014	Electric	Gas	Total	Electric	Electric	Gas	Total	Electric
Business Program							10.180	*
Commercial Refrigeration Efficiency	4,039	87	4,125	3,290	48,877	773	49,650	24,195
Compressed Air Efficiency	2,329		2,329	1,897	38,283		38,283	18,608
Computer Efficiency	5,731		5,731	4,668	28,730		28,730	15,225
Cooling Efficiency	2,909		2,909	2,370	54,636	.=	54,636	26,420
Custom Efficiency	2,856	974	3,830	2,327	48,847	17,810	66,657	23,899
Data Center Efficiency	7,937		7,937	6,466	119,921		119,921	58,457
Energy Management Systems	6,060	520	6,580	4,937	90,900	7,804	98,704	44,238
Heating Efficiency	0	1,039	1,039	0	0	16,864	16,864	0
Lighting Efficiency	52,220		52,220	42,539	843,439		843,439	408,655
Motor & Drive Efficiency	10,447		10,447	8,510	159,410		159,410	77,578
New Construction	24,918	8,478	33,396	20,299	498,358	169,564	667,922	231,878
Process Efficiency	18,982		18,982	15,463	322,696		322,696	157,883
Recommissioning	3,765	73	3,837	3,067	26,352	508	26,861	13,579
Segment Efficiency	86	0	86	70	1,206	0	1,206	598
Self-Directed Custom Efficiency	1,762		1,762	1,436	33,486		33,486	15,927
Small Business Lighting	8,487		8,487	6,914	135,933		135,933	66,098
Standard Offer	1,430	3	1,433	1,165	21,443	47	21,490	10,436
Business Program Total	153,956	11,174	165,130	125,416	2,454,005	213,371	2,667,376	1,201,940
Residential Program								
ENERGY STAR New Homes	1,595	5,897	7,492	1,299	30,788	116,424	147,212	14,644
Evaporative Cooling Rebates	2,181		2,181	1,776	32,711		32,711	15,919
Heating System Rebates	1,133	2,666	3,798	923	20,387	48,086	68,474	9,857
High Efficiency Air Conditioning	1,813		1,813	1,477	13,064		13,064	6,739
Home Lighting & Recycling	89,982		89,982	73,301	1,196,075		1,196,075	607,845
Home Performance with ENERGY STAR	273	921	1,194	223	3,953	15,629	19,582	1,956
Insulation	106	1,027	1,133	86	1,736	17,072	18,808	844
Pool Pump	134		134	109	1,344		1,344	642
Refrigerator Recycling	3,448		3,448	2,809	29,994		29,994	14,825
School Education Kits	3,585	2,003	5,588	2,921	50,196	20,028	70,224	25,326
Energy Efficient Showerhead	785	2,563	3,348	640	7,851	25,628	33,479	3,753
Water Heater Rebate	109	390	498	88	1,086	5,944	7,030	519
Residential Program Energy Efficiency Total	105,144	15,466	120,610	85,653	1,380,580	248,811	1,629,390	705,182
Load Management Program - Residential Saver's								
Switch	153		153	125	2,297		2,297	1,137
Residential Program Total	105,298	15,466	120,763	85,777	1,382,813	248,811	1,631,623	706,334
Low-Income Program								
Energy Savings Kit	864	528	1,391	703	11,559	5,276	16,836	5,916
Multi-Family Weatherization	1,411	648	2,059	1,150	15,522	7,131	22,654	7,547
Non-Profit Energy Efficiency	980	224	1,204	798	16,660	3,805	20,465	8,151
Single-Family Weatherization	1,715	3,131	4,846	1,397	19,287	60,694	79,980	9,377
Low-Income Program Total	4,970	4,531	9,500	4,048	63,211	76,906	140,117	31,563
I I D I C C C								
Indirect Products & Services								
Energy Feedback Pilot	20,299	5,553	25,853	16,536	20,299	5,553	25,853	16,536
Energy Feedback Pilot - Business	1,356	0	1,356	1,105	1,356	0	1,356	1,105
DSM Product Development Total	21,655	5,553	27,209	17,641	21,655	5,553	27,209	17,641
Planning and Research Total	21,655	5,553	27,209	17,641	21,655	5,553	27,209	17,641
Indirect Products & Services Total	21,655	5,553	27,209	17,641	21,655	5,553	27,209	17,641
PORTFOLIO TOTAL	285,879	36,723	322,602	232,882	3,950,709	544,641	4,495,351	1,987,609
I OKII OLIO IOIAL	400,019	30,723	344,004	434,004	3,730,709	344,041	4,473,331	1,20/,009

Program Costs by Budget Category

The Company uses the following six budget categories to track and report its annual expenditures for DSM programs and products within its portfolio:

1. Program Planning and Design

Expenditures for:

- Labor for product development and product managers.
- Expenditures related to product development, planning, and design.

2. Administration and Program Delivery

Expenditures for:

- Labor for product managers, sales representatives, cal center, rebate processing, technical consulting, and other fulfillment activities associated with delivering a product directly to the customer.
- Labor for installation contractors, vendors, technical consultants, fulfillment contractors, and alternative providers that Xcel Energy contracts with to provide DSM services.
- Project fulfillment, implementation and program support activities associate with delivering a program directly to the customer.

3. Advertising / Promotion / Customer Education

Expenditures for:

- Labor for communication staff and others.
- TV, radio, newspaper, and print media; direct promotion and sales support materials; postage, promotional events; contracted outbound telephone sales.
- Customer education through seminars, pamphlets, videos, and computer games.

4. Participant Rebates and Incentives

Expenditures for:

 Customer rebates, finance interest subsidies, subsidies for engineering studies, trade incentives, and incentives given in the form of subsidized products or equipment.

5. Equipment and Installation

Expenditures for:

• The costs to purchase energy efficient equipment and to install efficiency equipment at the customer site.

6. Measurement and Verification

Expenditures for:

- Labor for market research and load research.
- Labor product development staff, product development, external consultants, and product development research activities.
- Customer surveys, program evaluation expenses.

Table 7a: 2014 Electric Program Costs by Category (Budget)

Table /a: 2014 Electric Prog	,	J	Advertising /				
2014	Program Planning & Design	Administration & Program Delivery	Promotion / Customer Ed	Participant Rebates and Incentives	Equipment & Installation	Measurement and Verification	Total
Business Program							
Commercial Refrigeration Efficiency	\$0	\$1,213,400	\$51,500	\$854,207	\$0	\$30,626	\$2,149,734
Compressed Air Efficiency	\$12,000 \$1,592	\$209,134 \$405,167	\$88,495 \$22,682	\$437,878 \$83,140	\$0 \$0	\$23,483 \$23,420	\$770,990 \$536,001
Computer Efficiency Cooling Efficiency	\$1,592 \$5,425	\$405,167 \$852,859	\$22,682 \$81,606	\$2,211,592	\$0 \$0	\$23,420 \$28,800	\$3,180,282
Custom Efficiency	\$5,425	\$741,380	\$269,048	\$733,551	\$0 \$0	\$42,000	\$1,791,404
Data Center Efficiency	\$0	\$271,014	\$161,804	\$658,303	\$0	\$24,225	\$1,115,347
Energy Management Systems	\$0	\$219,781	\$221,489	\$633,336	\$0	\$14,649	\$1,089,255
Heating Efficiency							
Lighting Efficiency	\$15,925	\$2,293,400	\$731,215	\$7,583,221	\$0	\$56,022	\$10,679,783
Motor & Drive Efficiency	\$5,425	\$635,291	\$425,788	\$3,377,665	\$0 \$0	\$50,299 \$660,000	\$4,494,467
New Construction Process Efficiency	\$25,425 \$0	\$3,128,267 \$610,142	\$391,621 \$26,000	\$5,366,368 \$1,979,098	\$0 \$0	\$660,000	\$9,571,681 \$2,623,240
Recommissioning	\$20,000	\$244,477	\$160,992	\$694,795	\$0 \$0	\$10,000	\$1,130,264
Segment Efficiency	\$0	\$159,148	\$71,154	\$500,267	\$0	\$100,000	\$830,569
Self-Directed Custom Efficiency	\$0	\$154,746	\$63,604	\$1,164,453	\$0	\$0	\$1,382,803
Small Business Lighting	\$0	\$3,947,269	\$144,206	\$1,852,674	\$0	\$50,000	\$5,994,148
Standard Offer	\$0	\$7,395	\$0	\$0	\$0	\$0	\$7,395
Business Program Total	\$91,217	\$15,092,869	\$2,911,204	\$28,130,548	\$0	\$1,121,523	\$47,347,362
Residential Program							
ENERGY STAR New Homes	\$0	\$148,988	\$3,000	\$378,210	\$0	\$101,760	\$631,958
Evaporative Cooling Rebate	\$0	\$473,749	\$305,612	\$1,617,500	\$0	\$40,000	\$2,436,861
Heating System Rebate	\$0	\$22,630	\$26,703	\$250,000	\$0	- /	\$306,833
High Efficiency Air Conditioning	\$0 \$5,425	\$386,488 \$1,026,051	\$174,000 \$2,044,315	\$2,184,718 \$5,288,440	\$0 \$0	\$35,000 \$15,000	\$2,780,206 \$8,379,231
Home Lighting & Recycling Home Performance with ENERGY STAR	\$5,425	\$1,026,031 \$148,002	\$2,044,313	\$5,266,440	\$0 \$0	\$15,000	\$0,379,231
Insulation Rebate	\$0	\$36,233	\$10,550	\$322,463	\$0 \$0	\$20,000	\$378,696
Pool Pump	\$0	\$472,392	\$73,451	\$126,500	\$0	\$32,500	\$704,843
Refrigerator Recycling	\$0	\$585,997	\$315,462	\$400,000	\$0	\$6,000	\$1,307,459
School Education Kits	\$0	\$807,958	\$0	\$731,331	\$0	\$0	\$1,539,289
Energy Efficiency Showerhead	\$0	\$19,950	\$3,119	\$10,711	\$0		\$33,980
Water Heater Rebate	\$0	\$10,688	\$1,100	\$22,500	\$0	\$5,000	\$39,288
Residential Program Energy Efficiency Total	\$5,425	\$4,139,126	\$2,966,118	\$11,395,415	\$0	\$262,960	\$18,769,044
Load Management Program - Residential Saver's Switch	\$0	\$3,890,325	\$1,616,215	\$6,803,880	\$0	\$109,750	\$12,420,170
Residential Program Total	\$5,425	\$8,029,451	\$4,582,333	\$18,199,295	\$0		\$31,189,213
Low-Income Program							
Energy Savings Kit	\$0	\$99,237	\$32,400	\$198,338	\$0	\$2,500	\$332,475
Multi-Family Weatherization Non-Profit Energy Efficiency	\$0 \$0	\$71,207 \$90,750	\$40,000 \$15,000	\$264,946 \$806,299	\$0 \$0	\$11,352 \$22,475	\$387,505 \$934,524
Single-Family Weatherization	\$0 \$0	\$113,650	\$150,000	\$985,294	\$0	\$38,142	\$1,287,086
Low-Income Program Total	\$0	\$374,844	\$237,400	\$2,254,876	\$0		\$2,941,590
Indirect Products & Services Education/Market Transformation	+						
Business Energy Analysis	\$33,744	\$726,942	\$220,194	\$0	\$0	\$0	\$980,880
Community Energy Efficiency Planning Pilot	\$0	\$0	\$0	\$0	\$0		\$25,800
Consumer Education - Business	\$0	\$39,862	\$113,903	\$0	\$0	\$0	\$153,765
Consumer Education - Residential	\$0	\$340,108	\$892,566	\$0	\$0	\$0	\$1,232,674
Energy Efficiency Financing	\$15,000	\$0	\$35,000	\$0	\$0	\$10,000	\$60,000
Residential Home Energy Audit	\$0	\$285,055	\$58,009	\$211,600	\$0		\$610,664
Education/Market Transformation Total	\$48,744	\$1,391,967	\$1,319,672	\$211,600	\$0	\$91,800	\$3,063,783
Planning and Research							
DSM Planning & Administration	\$0	\$401,877	\$0	\$0	\$0	\$0	\$401,877
Program Evaluations	\$0	\$0	\$0	\$0	\$0	\$247,080	\$247,080
Measurement & Verification	\$0 \$0	\$0 \$290,688	\$0 \$0	\$0 \$0	\$0 \$0	\$13,175 \$0	\$13,175 \$290,688
DSM Market Research DSM Product Development	\$467,238	\$290,688 \$716,597	\$11,601	\$0 \$0	\$0 \$0	\$1,802	\$290,688
Energy Feedback Pilot	\$07,238	\$648,152	\$82,105	\$0	\$0 \$0		\$760,817
Energy Feedback Pilot - Business	\$22,199	\$228,460	\$0	\$0	\$0		\$255,754
In-Home Smart Device Pilot	\$0	\$9,645	\$0	\$0	\$0	\$41,053	\$50,698
Electric Vehicle Charging Station Pilot	\$0	\$0	\$0	\$2,100	\$0	\$2,120	\$4,220
DSM Product Development Total	\$489,437	\$1,602,854	\$93,706		\$0		\$2,268,727
Planning and Research Total	\$489,437	\$2,295,419	\$93,706	\$2,100	\$0		\$3,221,547
Indirect Products & Services Total	\$538,181	\$3,687,386	\$1,413,378	\$213,700	\$0	\$432,685	\$6,285,330
PORTFOLIO TOTAL	\$634,823	\$27,184,550	\$9,144,315	\$48,798,420	\$0	\$2,001,387	\$87,763,495

Table 7b: 2014 Electric Program Costs by Category (Actual Expenditures)

Table 70: 2014 Electric Pro			Advertising/	(11000011 1	 		
2014	Program Planning & Design	Administration & Program Delivery	Promotion/ Customer Ed	Participant Rebates and Incentives	Equipment & Installation	Measurement and Verification	Total
Business Program							
Commercial Refrigeration Efficiency Compressed Air Efficiency	\$0 \$0	\$578,564 \$179,128		\$473,982 \$318,942	\$0 \$0		\$1,090,816 \$561,783
Computer Efficiency	\$0 \$0	\$705,224		\$3,600			
Cooling Efficiency	\$0	\$483,037		\$1,463,873	\$0		
Custom Efficiency	\$0	\$786,228	\$240,816	\$580,804	\$0	\$23,722	\$1,631,570
Data Center Efficiency	\$0	\$207,262		\$845,681	\$0	- /	\$1,155,750
Energy Management Systems	\$0	\$278,210	\$170,707	\$655,430	\$0	\$6,569	\$1,110,915
Heating Efficiency	\$0	\$2,136,654	\$478,864	\$8,302,363	\$0	\$57,585	\$10,975,466
Lighting Efficiency Motor & Drive Efficiency	\$0 \$0			\$2,494,147	\$0		\$3,361,865
New Construction	\$0			\$4,912,825	\$0		\$7,664,054
Process Efficiency	\$0			\$2,979,463	\$0		
Recommissioning	\$0			\$389,471	\$0		\$696,358
Segment Efficiency	\$0	\$104,884				-	\$202,585
Self-Directed Custom Efficiency	\$0	\$99,789		\$278,290			\$397,851
Small Business Lighting Standard Offer	\$0 \$0	\$1,430,557 \$26,589		\$1,357,174 \$301,292	\$0 \$0	- /	\$3,015,630 \$327,789
Business Program Total	\$0		\$2,157,067	\$25,369,895	\$0		
	\$	\$10,000,0 <u>1</u>	\$2,107,007	\$20,000,000	,	\$010,000	400,112,017
Residential Program							
ENERGY STAR New Homes	\$0	\$212,966		\$363,233			
Evaporative Cooling Rebates	\$0	\$585,472		\$1,369,837	\$0		
Heating System Rebates	\$0	\$26,349		\$186,180		- /	\$224,936
High Efficiency Air Conditioning Home Lighting & Recycling	\$0 \$0	\$545,238		\$2,465,800 \$7,199,906	\$0 \$0	- /	\$3,270,423
Home Lighting & Recycling Home Performance with ENERGY STAR	\$0 \$0	\$828,237 \$76,985		\$64,223	\$0 \$0	\$11,550 \$22,942	\$8,982,760 \$184,432
Insulation	\$0	\$36,226		\$37,498	\$0		\$79,218
Pool Pump	\$0	\$205,618		\$19,600			\$264,071
Refrigerator Recycling	\$0	\$496,076	\$213,881	\$362,150	\$0	\$11,550	\$1,083,658
School Education Kits	\$0	\$591,866		\$799,077	\$0		\$1,392,049
Energy Efficient Showerhead	\$0			\$13,876			\$46,459
Water Heater Rebate Residential Program Energy Efficiency	\$0	\$16,678	\$3,142	\$23,850	\$0	\$0	\$43,670
Total	\$0	\$3 648 863	\$1,838,095	\$12,905,231	\$0	\$322,002	\$18,714,190
Load Management Program - Residential Saver's	· · · · · · · · · · · · · · · · · · ·	\$5,0 10,000	\$1,000,070	412,700,201	+ + + + + + + + + + + + + + + + + + + +	4522, 662	ψ103/113120
Switch	\$0	\$3,105,629	\$1,565,862	\$7,006,442	\$0	\$168,092	\$11,846,025
Residential Program Total	\$0	\$6,754,492	\$3,403,957	\$19,911,672	\$0		\$30,560,215
Low-Income Program	20	071.411	040.405	04.00.004	20	0.00	0405.044
Energy Savings Kit Multi-Family Weatherization	\$0 \$0	\$74,611 \$67,747	\$19,185 \$0	\$102,826 \$442,469	\$0 \$0		\$197,244 \$521,568
Non-Profit Energy Efficiency	\$0	\$85,456					\$812,713
Single-Family Weatherization	\$0	\$64,733		\$1,493,036			\$1,636,483
Low-Income Program Total	\$0		\$25,034	\$2,743,113	\$0		\$3,168,007
Indirect Products & Services							
Education/Market Transformation			***				
Business Energy Analysis	\$0 \$12,494			-\$22,400 \$0			\$488,812
Community Energy Efficiency Planning Pilot Consumer Education - Business	\$12,494						\$93,192 \$138,727
Consumer Education - Business Consumer Education - Residential	\$0 \$0			\$0			\$1,109,571
Energy Efficiency Financing	\$0						\$43,134
Residential Home Energy Audit	\$0	\$146,414	\$89,570	\$240,724	\$0	\$29,618	\$506,326
Education/Market Transformation Total	\$12,494	\$1,342,890	\$764,036	\$218,324	\$0	\$42,018	\$2,379,761
DI LI DI							
Planning and Research		8500.043		20		80	@E00.043
DSM Planning & Administration Program Evaluations	\$0 \$0						\$508,913 \$115,185
Measurement & Verification	\$0 \$0						\$5,651
DSM Market Research	\$0	\$227,849				-	\$227,849
DSM Product Development	\$272,445					\$1,097	\$557,619
Energy Feedback Pilot	\$19,548			\$0			\$780,403
Energy Feedback Pilot - Business	\$15,461	\$83,866					\$134,292
In-Home Smart Device Pilot Electric Vehicle Charging Station Pilot	-\$15 \$13,099		\$0 \$0				\$49,756 \$15,081
Multifamily Building	\$13,088 \$2,729			- /			\$15,081 \$2,729
Smart Thermostat	\$2,729 \$15,283						\$2,729 \$15,283
Smart Thermostat - DR	-\$8						-\$8
DSM Product Development Total	\$338,531	\$1,082,683	\$18,027	\$1,800	\$154	\$113,959	\$1,555,155
Planning and Research Total	\$338,531	\$1,837,008	\$18,027	\$1,800	\$154	\$217,233	\$2,412,753
Indirect Products & Services Total	\$351,025	\$3,179,898	\$782,063	\$220,124	\$154	\$259,251	\$4,792,515
PORTEO IO TOTAL							
PORTFOLIO TOTAL	\$351,025	\$20,624,957	\$6,368,120	\$48,244,804	\$154	\$1,373,223	\$76,962,284

Table 8a: 2014 Gas Program Costs by Category (Budget)

Table oa. 2014 Gas I logialli	-	-			1	1	ı
2014	Program Planning & Design	Administration & Program Delivery	Advertising/ Promotion/ Customer Ed	Participant Rebates and Incentives	Equipment & Installation	Measurement and Verification	Total
Business Program							
Commercial Refrigeration Efficiency	\$0	\$22,986	\$0	\$25,948	\$0	\$1,300	\$50,234
Compressed Air Efficiency							
Computer Efficiency							
Cooling Efficiency	# 0	#444 27 0	#4 00 2	#22.744	60	#4.000	P4 44 622
Custom Efficiency Data Center Efficiency	\$0	\$114,270	\$1,802	\$23,761	\$0	\$4,800	\$144,633
Blank							
Energy Management Systems	\$0	\$14,536	\$0	\$16,471	\$0	\$1,225	\$32,232
Heating Efficiency	\$0	\$122,827	\$1,802	\$460,282	\$0		\$612,121
Lighting Efficiency	40	ψ122,027	ψ1,002	¥100,202	40	427,210	Ψ012,121
Motor & Drive Efficiency							
New Construction	\$0	\$221,863	\$7,802	\$468,989	\$0	\$63,000	\$761,654
Process Efficiency							
Recommissioning	\$0	\$8,850	\$0	\$7,511	\$0	\$0	\$16,361
Segment Efficiency	\$0	\$2,529	\$0	\$24,237	\$0	\$0	\$26,766
Self-Directed Custom Efficiency							
Small Business Lighting							
Standard Offer	\$0	\$1,000	\$0	\$0	\$ 0	\$0	\$1,000
Business Program Total	\$0	\$508,861	\$11,406	\$1,027,198	\$0	\$97,535	\$1,645,000
Residential Program					_	_	
ENERGY STAR New Homes	\$0	\$552,767	\$12,000	\$1,574,981	\$ 0	\$407,040	\$2,546,788
Evaporative Cooling Rebate	en o	er1 027	era 707	#F00.000	60	Ø17 F00	₽711 14 0
Heating System Rebate High Efficiency Air Conditioning	\$0	\$51,936	\$52,706	\$589,000	\$0	\$17,500	\$711,142
Home Lighting & Recycling							
Home Performance with ENERGY STAR	\$0	\$66,375	\$13,660	\$101,471	\$0	\$0	\$181,506
Insulation Rebate	\$0	\$46,233	\$13,000	\$744,130	\$0	-	\$860,363
Pool Pump	40	¥10,233	90	Ψ/11,130	90	Ψ70,000	φοσο,505
Refrigerator Recycling							
School Education Kits	\$0	\$447,861	\$0	\$169,954	\$0	\$0	\$617,815
Energy Efficiency Showerhead	\$0	\$139,517	\$25,239	\$86,664	\$0	\$1,200	
Water Heater Rebate	\$0	\$39,503	\$8,000	\$85,950	\$0	\$25,000	\$158,453
Residential Program Total	\$0	\$1,344,192	\$111,605	\$3,352,150	\$0	\$520,740	\$5,328,687
Low-Income Program							
Energy Savings Kit	\$0	\$134,179	\$21,600	\$63,413	\$0	\$2,500	\$221,692
Multi-Family Weatherization	\$0	\$71,714	\$20,000	\$267,984	\$0	\$17,049	
Non-Profit Energy Efficiency	\$0	\$58,777	\$20,000	\$440,215	\$ 0	\$22,412	
Single-Family Weatherization	\$0	\$214,286	\$150,000	\$1,769,544	\$0		
Low-Income Program Total	\$0	\$478,956	\$211,600	\$2,541,156	\$0	\$75,709	\$3,307,421
Indirect Products & Services							
Education/Market Transformation							
Business Energy Analysis	\$10,800	\$124,066	\$3,450	\$0	\$0	\$0	\$138,316
Community Energy Efficiency Planning Pilot	\$10,000	\$124,000	\$0		\$0		\$4,200
Consumer Education - Business	\$0	\$19,931	\$30,071	\$0	\$0	- /	
Consumer Education - Residential	\$0	\$166,545	\$84,012	\$0			- /
Energy Efficiency Financing	\$15,000	\$0	\$35,000	\$0	\$0		
Residential Home Energy Audit	\$0	\$191,293	\$50,406	\$248,400	\$0	\$30,000	\$520,099
Education/Market Transformation Total	\$25,800	\$501,835		\$248,400			
Planning and Research							
DSM Planning & Administration	\$0	\$110,004	\$0	\$0	\$0		\$110,004
Program Evaluations	\$0	\$0	\$0	\$0	\$0	\$204,580	\$204,580
Measurement & Verification	\$0	\$0	\$0		\$0		\$3,188
DSM Market Research	\$0	\$164,143			\$0		\$164,143
DSM Product Development	\$95,715	\$91,000			\$0		" /
Energy Feedback Pilot	\$0	\$200,214		\$0	\$0		
Energy Feedback Pilot - Business	\$7,010	\$72,146	\$0	\$0	\$0	\$1,609	\$80,765
In-Home Smart Device Pilot							
Electric Vehicle Charging Station Pilot	6400 505	6262.262	640 (0)		**	644.040	6F40 F40
DSM Product Development Total	\$102,725	\$363,360		ì	\$0		
Planning and Research Total	\$102,725					. ,	
Indirect Products & Services Total	\$128,525	\$1,139,342	\$245,565	\$248,400	\$0	\$263,017	\$2,024,849
PORTEOLIO TOTAL	#400 FOF	62 454 254	6500.457	67 4C0 00 4	60	6057.004	610 205 055
PORTFOLIO TOTAL	\$128,525	\$3,471,351	\$580,176	\$7,168,904	\$0	\$957,001	\$12,305,957

Table 8b: 2014 Gas Program Costs by Category (Actual Expenditures)

Table ob: 2014 Gas Flogram	- Coole ay	- Guitegory		P		ı	,
2014	Program Planning & Design	Administration & Program Delivery	Advertising/ Promotion/ Customer Ed	Participant Rebates and Incentives	Equipment & Installation	Measurement and Verification	Total
Business Program							
Commercial Refrigeration Efficiency	\$0	\$4,552	\$0	\$2,903	\$0	\$0	\$7,455
Compressed Air Efficiency							
Computer Efficiency							
Cooling Efficiency							
Custom Efficiency	\$0	\$17,308	\$365	\$64,653	\$0	\$300	\$82,626
Data Center Efficiency							*
Energy Management Systems	\$0	\$2,408	\$0	\$38,435	\$0	\$0	\$40,843
Heating Efficiency	\$0	\$161,415	\$9,518	\$340,438	\$0	\$14,675	\$526,047
Lighting Efficiency Motor & Drive Efficiency							
New Construction	\$0	\$93,846	\$199	\$666,000	\$0	\$16,916	\$776,962
Process Efficiency	\$0	\$258	\$199	\$000,000	\$0		\$258
Recommissioning	\$0	\$236 \$1,454	\$0	\$27,224	\$0		\$28,678
Segment Efficiency	\$0	\$618	\$56	-\$250	\$0		\$424
Self-Directed Custom Efficiency	90	9010	\$30	-9230	90	90	Ş⊤∠⊤
Small Business Lighting							
Standard Offer	\$0	\$2,118	\$0	\$224	\$0	\$0	\$2,342
Business Program Total	\$0	\$283,977	\$10,138		\$0		
Zuomeoo 110g1um 10tm	Ψ0	Ψ203,777	ψ10,130	ψ1,137,020	Ψ	ψ31,071	ψ1,105,055
Residential Program	1						
ENERGY STAR New Homes	\$0	\$512,712	\$1,934	\$2,720,767	\$0	\$530,660	\$3,766,073
Evaporative Cooling Rebates	\$0	212,712	ψ1,7J4	ψω, / Δ0, / 0 /	90	<i>2330</i> ,000	42,700,073
Heating System Rebates	\$0	\$154,919	\$45,845	\$434,381	\$0	\$12,988	\$648,132
High Efficiency Air Conditioning	•	ψ15 1,5 12	¥10,010	¥131,301	4~	¥12,700	9010,132
Home Lighting & Recycling	1						
Home Performance with ENERGY STAR	\$0	\$81,785	\$7,837	\$223,184	\$0	\$12,324	\$325,130
Insulation	\$0	\$62,550	\$7,487	\$184,073	\$0	\$30,637	\$284,748
Pool Pump		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,	, ,	"	,,,,,,,,	1
Refrigerator Recycling							
School Education Kits	\$0	\$261,092	\$349	\$169,258	\$0	\$0	\$430,699
Energy Efficient Showerhead	\$0	\$218,118	\$41,822		\$0		\$411,021
Water Heater Rebate	\$0	\$54,025	\$12,798	\$127,490	\$0	\$19,900	\$214,213
Residential Program Total	\$0	\$1,345,202	\$118,072	\$4,007,655	\$0	\$609,087	\$6,080,016
Low-Income Program							
Energy Savings Kit	\$0	\$41,315	\$12,329	\$38,018	\$0	\$622	\$92,284
Multi-Family Weatherization	\$0	\$44,252	\$0	\$553,331	\$0	\$20,082	\$617,666
Non-Profit Energy Efficiency	\$0	\$42,886	\$0	\$444,983	\$0	\$22,447	\$510,316
Single-Family Weatherization	\$0	\$78,292	\$11,937	\$1,929,984	\$0	\$82,990	\$2,103,202
Low-Income Program Total	\$0	\$206,745	\$24,266	\$2,966,316	\$0	\$126,140	\$3,323,468
Indirect Products & Services							
Education/Market Transformation							
Business Energy Analysis	\$0	\$34,948	\$0	\$0	\$0	\$0	\$34,948
Community Energy Efficiency Planning Pilot	\$205	\$13,433	\$2,179	\$0	\$0		\$15,816
Consumer Education - Business	\$0	\$42,349	\$5,686		\$0		\$48,034
Consumer Education - Residential	\$0	\$74,084			\$0		
Energy Efficiency Financing	\$0	\$21,767	\$8,171	\$0	\$0		\$29,938
Residential Home Energy Audit	\$0	\$142,059	\$32,422		\$0		\$486,897
Education/Market Transformation Total	\$205	\$328,640	\$171,219	\$278,725	\$0	\$33,692	\$812,481
Planning and Research							
DSM Planning & Administration	\$0	\$127,160	\$0	\$0	\$0		\$127,160
Program Evaluations	\$0	\$7,854	\$0		\$0		\$106,163
Measurement & Verification	\$0	\$1,397	\$0		\$0		
DSM Market Research	\$0	\$158,460	\$0		\$0		
DSM Product Development	\$84,890	\$90,564	\$7,098				
Energy Feedback Pilot	\$5,131	\$186,517	\$187	\$0	\$0		\$195,336
Energy Feedback Pilot - Business	\$4,945	\$29,466	\$0	\$0	\$0	\$12,285	\$46,697
In-Home Smart Device Pilot	1						ļ
Electric Vehicle Charging Station Pilot	***		ec				0.0
Multifamily Building	\$1,340	\$0	\$0	\$0	\$0		\$1,340
Smart Thermostat	\$4,314	\$0	\$0	\$0	\$0	\$0	\$4,314
Smart Thermostat - DR							
DSM Product Development Total	\$100,620		\$7,286				
Planning and Research Total	\$100,620	\$601,418					
Indirect Products & Services Total	\$100,825	\$930,058	\$178,505	\$278,725	\$0	\$147,787	\$1,635,899
	<u> </u>						
PORTFOLIO TOTAL	\$100,825	\$2,765,982	\$330,982	\$8,392,324	\$0	\$914,905	\$12,505,018

Flood Victim DSM Rebate Program

On October 28, 2013 the Company filed an Unopposed Verified Petition for Expedited Approval of a Full Waiver of the DSM 60-Day Notice Requirement for the Purposes of Implementing a Flood Victim DSM Rebate Program, and Motion for Waiver of Intervention and Response Time to the Petition, as Proceeding No. 13M-1152EG. The Petition and Motion were granted on October 31, 2013, in Decision No. C13-1380.

The Program is aimed at influencing and assisting victims of 2013 Colorado flooding to rebuild with energy efficient options. This effort leads to new DSM energy savings potential resulting from the urgency in replacing energy-consuming equipment following devastating flooding in Colorado in September 2013. The approved Program enabled an increase in the level of rebates offered through 10 of the Company's prescriptive business and residential DSM products, to up to 100 percent of the incremental cost of installation, for flood victims. The total budget for the Flood Victim DSM Rebate Program was estimated at \$2.6 million—\$1.6 million in 2013 and \$1.0 million in 2014.

The 10 DSM products that offered these rebates in 2013 and 2014 included:

Business Program

- Cooling Efficiency (electric only)
- Heating Efficiency (gas only)

Residential Program

- Heating System Rebate (gas only)
- High Efficiency Air Conditioning (electric only)
- Evaporative Cooling Rebate
- Water Heater Rebate

Low-Income Program

- Energy Savings Kit
- Multi-Family Weatherization
- Non-Profit Energy Efficiency
- Single-Family Weatherization

The Company worked with the Colorado Energy Office (CEO) and Energy Efficiency Business Coalition (EEBC) to promote flood relief activities to affected customers; and coordinated with trade organizations and other stakeholders to promote program messaging.

In 2014, flood victim DSM rebates were largely utilized by residential customers for installing heating systems and water heaters. Savings and costs associated with those rebates are captured within <u>Table 4b</u> and <u>Table 5b</u> of this report.

⁹ Flood Victims are Public Service customers that registered a Disaster Survivor Application with the Federal Emergency Management Agency (FEMA) on or before September 12, 2013.

Participation Analysis

Decision No. C14-0731 in 2013 DSM Strategic Issues (Proceeding No. 13A-0686EG) directed the Company to "collect, define, and analyze participant and non-participant rates. In future DSM plan filings, the Company shall explain how these data were collected and used for each program." ¹⁰ Furthermore, the Commission clarified in Decision No. C14-0997 that "we also require that the Company set forth proposals for tracking participants and non-participants for specific programs and measures and to provide estimates of participant and non-participant counts in its DSM Plans. While we recognize that, for certain programs or measures it may be difficult or prohibitively expensive to collect such data, it is reasonable for the Commission to consider plans for tracking participation and non-participation when programs and measures are proposed in a DSM Plan filing and when we review the cost-effectiveness and ratepayer impacts of those programs and measures."11

In the 2015/16 DSM Plan, ¹² filed on October 30, 2014, the Company assessed its ability to individually track customer-level participation for each DSM product, and overall for the portfolio, for reporting both participants and non-participants. That assessment is provided on pages 36-29 of the Plan.

The Company has continued that tracking process for this Report, as well as providing an analysis of the rate impacts and bill impacts for DSM participants and non-participants.

2014 Participation

Participant counts have been reported at the customer level (rather than at the premise level as had been forecasted in the 2014 DSM Plan) for each electric DSM product and customer class, as well as the portfolio total counts for the 2014 calendar year. These values are shown in Tables 9a, 9b, 9c, and 9d.

Historical Participation Analysis

The Company believes a thorough analysis of participants and non-participants must go beyond an accounting of participation in a particular year; it must also consider the amount of cumulative consumption savings and rate impacts realized by customers each year due to DSM, over several program years. To this end, the Company has identified the estimated percentages of business and residential customers by their range of consumption savings attributable to DSM participation since the expansion of the DSM programs in 2009. The extent of individual participation is further compared to the cumulative rate impacts of DSM program since 2009. The combination of these factors results in identification of the level and distribution of bill impact from DSM among business and residential customers. This data is shown in Tables 9e, 9f, and 9g.

¹⁰ Paragraph 115, pg. 39. ¹¹ Paragraph 24, pg. 8.

¹² At the time this report was completed the 2015/16 DSM Plan was still pending approval in Proceeding No. 14A-1057EG.

Table 9a: 2014 Electric Participation, Percentage of Total by Customer Class

	Total Unique DSM Participants (Estimate) ¹³		Total I Custom		PSCo Cus Participating		PSCo Customers Not Participating in DSM		
Electric	Count	%	Count	%	Count	%	Count	%	
2014 Total	501,795	100%	1,249,736	100%	501,795	40.15%	747,941	59.85%	
Business	18,360	2.76%	96,990	7.76%	18,360	18.93%	78,544	81.07%	
Residential	483,435	96.34%	1,152,746	92.24%	483,435	41.94%	505,231	58.06%	

Table 9b: 2014 Natural Gas Participation, Percentage of Total by Customer Class

	Total Unio Partici (Estim	pants	Total DSM PSCo Cus		PSCo Cus Participating		PSCo Customers Not Participating in DSM	
Gas	Count	%	Count	%	Count	%	Count	%
2014 Total	185,823	100%	1,348,559	100%	185,823	13.78%	1,162,736	86.22%
Business	7,227	3.89%	106,558	7.90%	7,227	6.78%	99,331	93.22%
Residential	178,596	96.11%	1,242,001	92.10%	178,596	14.38%	1,063,405	85.62%

¹³ Participation by DSM product is shown in Table 9b below. Total estimated participation is the sum of DSM participation estimates for each electric product [show in Table 9c] less the number of duplicates

⁽participation in multiple products).

14 Customer count as of 12/31/2014.

15 Participation by DSM product is shown in Table 9b below. Total estimated participation is the sum of DSM participation estimates for each natural gas product [show in Table 9d] less the number of duplicates (participation in multiple products).

16 Customer count as of 12/31/2014. Excludes Transportation served customers.

Table 9c: 2014 Electric Participation, Average Rebate and Savings

Product	2014 Participants	Average Rebate Per Customer	Average kWh Savings Per Customer
Business Program			
Commercial Refrigeration Efficiency	570	\$831.55	9,075
Compressed Air Efficiency	41	\$7,779.08	72,749
Computer Efficiency	4,417	\$0.82	1,662
Cooling Efficiency	187	\$7,828.20	19,924
Custom Efficiency	13	\$44,677.23	281,381
Data Center Efficiency	10	\$84,568.12	1,016,588
Energy Management Systems	46	\$14,248.47	168,734
Lighting Efficiency	1,608	\$5,163.16	41,595
Motor & Drive Efficiency	280	\$8,907.67	47,787
New Construction	109	\$45,071.79	292,802
Process Efficiency	16	\$186,216.42	1,519,543
Recommissioning	29	\$13,430.04	166,268
Segment Efficiency	6	\$2,093.23	18,358
Self-Directed Custom Efficiency	2	\$139,145.00	1,128,660
Small Business Lighting	399	\$3,401.44	27,244
Standard Offer	4	\$75,323.00	457,743
Residential Program		" -	·
ENERGY STAR New Homes	2,228	\$163.03	905
Evaporative Cooling Rebates	3,344	\$409.64	825
Heating System Rebates	1,642	\$113.39	872
High Efficiency Air Conditioning	3,191	\$772.74	718
Home Lighting & Recycling	358,876	\$20.06	317
Home Performance with ENERGY STAR	305	\$210.57	1,132
Insulation	338	\$110.94	397
Pool Pump	80	\$245.00	2,124
Refrigerator Recycling	7,191	\$50.36	606
School Education Kits	38,691	\$20.65	117
Energy Efficiency Showerhead	6,036	\$2.30	164
Water Heater Rebate	48	\$496.88	2,860
Load Management Program - Residential Saver's		π 12 0100	_,
Switch	10,024	N/A	N/A
Low-Income Program			
Energy Savings Kit	5,428	\$18.94	201
Multi-Family Weatherization	29	\$15,257.56	61,524
Non-Profit Energy Efficiency	30	\$23,492.72	41,302
Single-Family Weatherization	2,436	\$612.90	890
Indirect Products & Services			
Business Energy Analysis	147	-\$152.38	0
Consumer Education - Business	1,516	\$0.00	0
Consumer Education - Residential	40,038	\$0.00	0
Energy Efficiency Financing*	89	\$0.00	0
Residential Home Energy Audit	2,341	\$102.83	0
Planning and Research			
Energy Feedback Pilot	99,301	\$0.00	258
Energy Feedback Pilot - Business	10,486	\$0.00	163

^{*}There were 89 participants (81 residential and 8 commercial) in Energy Efficiency Financing in 2014; they were not tracked by fuel type.

Table 9d: 2014 Natural Gas Participation

Product	2014 Participants	Average Rebate Per Customer	Average Dth Savings Per Customer
Business Program			
Commercial Refrigeration Efficiency	92	\$31.55	16
Custom Efficiency	7	\$9,236.14	2,300
Energy Management Systems	22	\$1,747.05	391
Heating Efficiency	103	\$3,305.22	167
New Construction	76	\$8,763.16	1,844
Recommissioning	17	\$1,601.44	71
Segment Efficiency	1	-\$250.00	0
Standard Offer	1	\$224.40	52
Residential Program			
ENERGY STAR New Homes	3,295	\$825.73	30
Heating System Rebates	3,156	\$137.64	14
Home Performance with ENERGY STAR	348	\$641.33	44
Insulation	786	\$234.19	22
School Education Kits	38,691	\$4.37	1
Energy Efficiency Showerhead	31,674	\$4.69	1
Water Heater Rebate	1,672	\$76.25	4
Low-Income Program			
Energy Savings Kit	7,786	\$4.88	1
Multi-Family Weatherization	14	\$39,523.66	765
Non-Profit Energy Efficiency	25	\$17,799.32	148
Single-Family Weatherization	1,865	\$1,034.84	28
Indirect Products & Services			
Business Energy Analysis	117	\$0.00	0
Consumer Education - Business	2,333	\$0.00	0
Consumer Education - Residential	40,037	\$0.00	0
Energy Efficiency Financing*	89	\$0.00	0
Residential Home Energy Audit	2,634	\$105.82	0
Planning and Research			
Energy Feedback Pilot	99,301	\$0.00	1
Energy Feedback Pilot - Business	6,942	\$0.00	0

^{*}There were 89 participants (81 residential and 8 commercial) in Energy Efficiency Financing in 2014; they were not tracked by fuel type.

Table 9e: Estimated Customer Consumption Savings Range, 2009-2014

Year	Total Non-F (0% Sa	•	Saving 1-2	articipants 2% of Annual onsumption	Savings 3-5	rticipants 5% of Annual onsumption	6-10% of A	ipants Saving nnual Electric umption	11-25%	ipants Saving of Annual onsumption	Saving Mo	articipants ore than 25% ual Electric umption
	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
2009												
BUS	95,264	98.22%	583	0.60%	325	0.34%	225	0.23%	418	0.43%	175	0.18%
RES	1,002,895	83.78%	46,664	3.90%	49,289	4.12%	64,964	5.43%	29,559	2.47%	3,660	0.31%
2010									•			
BUS	93,700	96.61%	1,063	1.10%	574	0.59%	501	0.52%	627	0.65%	524	0.54%
RES	841,077	70.26%	75,558	6.31%	67,823	5.67%	121,557	10.15%	80,156	6.70%	10,859	0.91%
2011									•			
BUS	90,922	93.74%	1,703	1.76%	1,117	1.15%	996	1.03%	1,374	1.42%	878	0.91%
RES	521,924	43.60%	68,964	5.76%	116,415	9.73%	237,175	19.81%	214,875	17.95%	37,678	3.15%
2012												
BUS	86,193	88.87%	2,319	2.39%	1,749	1.80%	1,689	1.74%	2,861	2.95%	2,179	2.25%
RES	481,788	40.25%	78,694	6.57%	133,753	11.17%	245,966	20.55%	217,324	18.16%	39,507	3.30%
2013												
BUS	83,530	86.12%	2,570	2.65%	2.177	2.24%	2,295	2.37%	3,612	3.72%	2,805	2.89%
RES	352,847	29.48%	73,693	6.16%	153,450	12.82%	276,372	23.09%	282,966	23.64%	57,704	4.82%
2014									•			
BUS	80,168	82.66%	3,008	3.10%	2,755	2.84%	2,828	2.92%	4,510	4.65%	3,721	3.84%
RES	237,454	19.84%	57,010	4.76%	178,786	14.94%	303,588	25.36%	343,422	28.69%	76,770	6.41%

Table 9f: Estimated Cumulative Rate Impact, 2009-2014

	Cumulative Electric Rate Impact										
Year	DSM Cost System Recovery Benefits		Lost Revenue	Rate Imbalance (Increase)	Rate Impact (Increase)	Total Revenue	% Rate Increase				
2009	\$31.8M	\$16.7M	\$10.4M	-\$6.2M	\$25.5M	\$2,216M	1.151%				
2010	\$42.2M	\$32.3M	\$22.4M	-\$9.9M	\$32.4M	\$2,614M	1.238%				
2011	\$51.7M	\$48.0M	\$36.0M	-\$12.0M	\$39.7M	\$2,673M	1.486%				
2012	\$67.1M	\$71.2M	\$62.7M	-\$8.4M	\$58.7M	\$2,604M	2.255%				
2013	\$63.5M	\$92.7M	\$87.7M	-\$4.9M	\$58.6M	\$2,793M	2.097%				
2014	\$65.1M	\$108.8M	\$109.2M	\$0.3M	\$65.5M	\$2,865M	2.285%				

Table 9g: Estimated Customer Bill Impacts from DSM, 2009-2014

Year	Customers >1 Increase	% Bill	Customer: Increase	s 0-1% Bill	Customers Savings	0-2% Bill	Customers Savings	3-5% Bill	Customers Savings	6-15% Bill	Customers 15% Bill Sav	
	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
2009												
BUS	95,395	98.36%	318	0.33%	257	0.26%	261	0.27%	471	0.49%	288	0.30%
RES	1,003,343	83.82%	39,099	3.27%	21,072	1.76%	54,960	4.57%	67,954	5.68%	10,858	0.91%
2010												
BUS	93,931	96.85%	598	0.62%	489	0.50%	461	0.48%	726	0.75%	783	0.81%
RES	845,554	70.64%	61,787	5.16%	29,019	2.42%	82,581	6.90%	143,759	12.01%	34,322	2.87%
2011												
BUS	91,583	94.43%	792	0.82%	858	0.88%	870	0.90%	1,438	1.48%	1,449	1.49%
RES	703,376	58.76%	40,082	3.35%	38,547	3.22%	117,868	9.85%	228,185	19.06%	68,950	5.76%
2012												
BUS	87,971	90.70%	717	0.74%	1,257	1.30%	1,179	1.22%	2,521	2.60%	3,344	3.45%
RES	547,524	45.74%	17,512	1.46%	80,617	6.73%	167,317	13.98%	282,157	23.57%	101,883	8.51%
2013												
BUS	85,209	87.85%	933	0.96%	1,493	1.54%	1,686	1.74%	3,306	3.41%	4,364	4.50%
RES	403,710	33.73%	24,509	2.05%	91,003	7.60%	181,822	15.19%	348,137	29.08%	147,819	12.35%
2014												
BUS	82,680	85.25%	1,075	1.11%	1,808	1.86%	1,857	1.91%	4,006	4.13%	5,562	5.73%
RES	277,559	23.19%	25,085	2.10%	112,873	9.43%	201,714	16.85%	390,844	32.65%	188,918	15.78%

Compliance

Table 10: Reporting Requirements and Compliance

Item#	Compliance Point – Description	Statute / Rule / Proceeding Reference	Status Report Reference	Comments
ELECT	'RIC			
1	The annual DSM report will be filed with the Commission on April 1 of each year, starting in 2010.	Proceeding No. 07A-420E, Decision No. C08-560, p.53, ¶173.		Report filed April 1, 2015.
2	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.	Proceeding No. 07A-420E, Decision No. C08-0769 p.18, ¶58	See Avoided Cost Assumptions	Reference values: Proceeding No. 11A-631EG, 2012/2013 DSM Plan, Appendix C – Avoided Cost Assumptions, pgs. 290-292.
3	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.	Proceeding No. 08A-366EG, Decision No. R08-1243, Stipulation & Settlement Agreement, p.16	See <u>Tables 4a - 6</u>	\$/kWh over lifetime and net economic benefits achieved by product in Cost-Effectiveness Section.

	1	1 3 1 3 7 5 7 1		
		Proceeding No. 08A-		Deemed savings approved in
		366EG, Decision		Proceeding No. 11A-631EG
		No. R08-1243,		(2012/2013 DSM Plan) were
		Stipulation &		used to calculate prescriptive
		Settlement		product achievements from
		Agreement, p.14		01/01/2014-04/30/2014 and
				those approved in Proceeding
		Proceeding No. 11A-		No. 13A-0773EG (2014 DSM
		631EG, 2012/2013		Plan) were used to calculate
	Use deemed savings from the technical assumptions to	DSM Plan, Appendix		prescriptive product
4	calculate the prescriptive program savings.	E – Technical		achievements from
	calculate the prescriptive program savings.	Reference Manual,		05/01/2014-12/31/2014, or
		,		
		pgs. 294-597.		as amended in a 60-Day
		D 11 37 404		Notice.
		Proceeding No. 13A-		
		0773EG, 2014 DSM		
		Plan, Appendix E –		
		Technical Reference		
		Manual, pgs. 286-		
		833.		
		Proceeding No. 08A-	See Cost-	The avoided cost methodology
		366EG, Decision	Effectiveness	approved in Proceeding No.
		No. R08-1243,		11A-631EG (2012/2013 DSM
		Stipulation &		Plan) was applied to product
		Settlement		achievements from
		Agreement, p.14		01/01/2014-04/30/2014, and
	Use the methodology described in the Direct Testimony of	8 71		the methodology approved in
5	Company witness Jeremy Petersen (JP) to determine DSM	Proceeding No. 11A-		Proceeding No. 13A-0773EG
	portfolio and program cost-effectiveness.	631EG, 2012/2013		(2014 DSM Plan) was applied
	portiono and program cost-criccuveness.	DSM Plan, pgs. 262-		to product achievements from
		277.		05/01/2014-12/31/2014.
		411.		05/01/2014-12/31/2014.
		Drogooding No. 124		
		Proceeding No. 13A-		
		0773EG, 2014 DSM		
		Plan, pgs. 279-281.		

		D 1: NI 00A		Net economic benefit
		Proceeding No. 08A-	See Cost-	
6	Use this same JP methodology for calculating the net economic benefit associated with DSM measures actually	366EG, Decision	<u>Effectiveness</u>	calculations for product
		No. R08-1243,		achievements from
		Stipulation &		01/01/2014-04/30/2014 were
		Settlement		based on the methodology
		Agreement, p.14		approved in Proceeding No.
				11A-631EG (2012/2013 DSM
		Proceeding No. 11A-		Plan), and the calculations for
	installed.	631EG, 2012/2013		product achievements from
		DSM Plan, pgs. 262-		05/01/2014-12/31/2014 were
		277.		based on the methodology
				approved in Proceeding No.
		Proceeding No. 13A-		13A-0773EG (2014 DSM
		0773EG, 2014 DSM		Plan).
		Plan, pgs. 279-281.		,
7	All Participant O&M data should be treated as proprietary in the absence of a written agreement signed by the Participant	Proceeding No. 08A-		
		366EG, Decision		
		No. R08-1243,		
		Stipulation &		
		Settlement		
		Agreement, p.8		
	authorizing disclosure.	118reemeng pro		
		Proceeding No. 11A-		
		631EG, 2012/2013		
		DSM Plan, pg. 106		
		Proceeding No. 08A-	See <u>Financial</u>	
		366EG, Decision	Incentive	
		No. R08-1243,	Calculations	
		Stipulation &	<u>Sarountiono</u>	
	Do not include Participant O&M data in incentive	Settlement		
8	calculations unless there is authorization to disclose such data.	Agreement, p.8		
	calculations arriess there is authorization to disclose such data.	rigicement, p.o		
		Proceeding No. 11A-		
		631EG, 2012/2013		
		DSM Plan, pg. 106		
		DSM Plan, pg. 106		

9	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	Proceeding No. 08A-366EG, Decision No. R08-1243, Stipulation & Settlement Agreement, p.9		Participant O&M data has been neither requested nor disclosed to any external party.
	party or by any other means, except after receipt of written authorization from the Participant			
10	Verify results of Self-Directed customers' energy savings calculations and evaluation, M&V results.	Proceeding No. 08A-366EG, Decision No. R08-1243, Stipulation & Settlement Agreement, p.7 Proceeding No. 11A-631EG, 2012/2013 DSM Plan, pg. 104.	See Evaluation, Measurement and Verification	
11	Approve Self-Directed customers' projects for which the customer meets TRC test value at least equal to one (1), rather than limiting this product to installations that have a TRC value at least equal to the TRC value for the overall DSM portfolio.	Proceeding No. 08A-366EG, Decision No. R08-1243, Stipulation & Settlement Agreement, p.7		Ongoing.
12	Offer the Self-Directed Custom Efficiency product 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.	Proceeding No. 08A- 366EG, Decision No. R08-1243, Stipulation & Settlement Agreement, p.8		Ongoing.

		Proceeding No. 08A-		Ongoing.
13	Track expenditures, energy savings, and paybacks associated with each approved project under the Self-Directed Custom Efficiency product.	366EG, Decision		
		No. R08-1243,		
		Stipulation &		
		Settlement		
		Agreement, p.8		
	All incentive payments must be included in the final TRC	Proceeding No. 07A-	See <u>Financial</u>	
	calculation. At the time of the annual report following the	420E, Decision No,	<u>Incentive</u>	
14	DSM performance year, the incentive amounts will be	C08-560, p.37, ¶117	<u>Calculations</u>	
	"proposed" versus "final". PSCo shall include the proposed			
	incentive amounts in their annual report.			
	For any low-income program that achieves a TRC<1.0, the	Proceeding No. 07A-	See <u>Financial</u>	
15	costs and benefits may be excluded from the calculation of	420E, Decision No,	<u>Incentive</u>	
	net economic benefits. The energy and demand savings may	C08-560, p.44, ¶140	<u>Calculations</u>	
	be applied toward the calculation of overall energy and	- "		
	demand savings, for the purposes of determining progress			
	toward annual goals.			
16	Beginning with the 2012 Annual Status Report, we will	Proceeding No. 10A-	See Executive	
	quantify and track certain costs incurred through the use of	554EG Decision No.	<u>Summary</u>	
	third-party providers.	C11-0442, p. 52, ¶4		
	For any pilot that does not pass the MTRC test at the end of	Proceeding No. 11A-	See <u>Indirect Program</u>	Included within Report filed
	the year, Public Service will explain the causes and provide	631EG, 2012/2013		April 1, 2015.
17	recommendations on the pilot's continuation in the annual	DSM Plan, pg. 14.		
	status report. For pilots that are also considered Market			
	Transformation and are not claiming savings in 2012 or 2013,			
	the Commission Decision allows a presumptive TRC of 1.0			
	for purposes of calculating the financial incentive.			
18	Regarding the calculation of the net economic benefits and	Proceeding No. 13A-	See <u>Financial</u>	
	incentives under the electric DSM Plan for 2013 and 2014, for	0773EG, Decision	<u>Incentive</u>	
	the year 2014, Public Service's electric energy savings goal is	No. R13-1204-I,	<u>Calculations</u>	
	proposed to be pro-rated based on the portion of the year	Para. 18, 2014 DSM		
	that the interim extension of the 2013 DSM Plan is in effect	Plan		
	and the portion of the year that the 2014 DSM Plan approved			
	here is in effect. Public Service's overall performance is to be			
	measured at the end of 2014 and compared against its energy			
	savings goal pro-rated as described above.			

19	For all electric DSM measures implemented during the period the interim extension is in effect, Public Service proposes that its energy savings and net economic benefits will be measured based on the avoided costs and technical assumptions, including net-togross ratios used for the 2013 DSM Plan. At the time the 2014 DSM Plan is implemented, energy savings and net economic benefits are proposed to be determined based on the avoided costs and technical assumptions, including net-togross ratios which are approved here.	Proceeding No. 13A- 0773EG, Decision No. R13-1204-I, Para. 19, 2014 DSM Plan	See Evaluation, Measurement & Verification	
20	Expand its 2014 annual status report (due April 1, 2015) to illustrate the contribution and achievements of the interim extension of the 2013 DSM Plan and the 2014 DSM Plan on a separate and combined basis.	Proceeding No. 13A- 0773EG, Decision No. R13-1204-I, Para. 21, 2014 DSM Plan	See Appendix B	Included within Report filed April 1, 2015.
NATUE	RAL GAS			
1	Beginning April 1, 2010 and each April 1st thereafter, each utility shall submit its annual DSM report, application for bonus and DSMCA filing.	Rule 4752(b)		Report filed April 1, 2015.
2	Each utility shall also file an annual DSM report and an application for bonus.	Rule 4750(b)		Included with Report filed April 1, 2015.
3	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.	Rule 4753(h)(I)		PSCo spent a total of \$12.5 million on its natural gas DSM programs. This surpassed the expenditure targets – \$7,401,640 (2% of gas base rate revenues), and \$5,444,384 (0.5% of total gas revenues) set in Proceeding No. 08A-366EG.
4	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.	Rule 4754(a)	See 2014 Status Report	

5	Annual program expenditures shall be separated into cost categories contained in the approved DSM plan.	Rule 4754(b)	See Tables 7a, 7b, 8a, 8b	
6	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.	Rule 4754(c)	See 2014 Status Report	
7	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.	Rule 4754(d)	See Cost- Effectiveness	Business, Residential, and Low-Income cost-benefit analysis (CBA) results are included in CBA work paper.
8	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.	Rule 4754(e)	See Evaluation, Measurement & Verification	

	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	Rule 4754(f)	See Financial Incentive Calculations	Included within Report filed April 1, 2015.
9	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.			
10	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)	Rule 4754(g)	See Financial Incentive Calculations	
11	Public Service's overall performance is proposed to be measured at the end of calendar year 2014 and compared against its natural gas energy savings target as proposed to be prorated.	Proceeding No. 13A- 0773EG, Decision No. R13-1204-I, Para. 23, pg. 8	See <u>Financial</u> <u>Incentive</u> <u>Calculations</u>	Included within Report filed April 1, 2015.

Financial Incentive Calculations

Electric Financial Incentive

The Commission approved the financial incentive mechanism—which includes a "Disincentive Offset" and "Performance Incentive"— applicable for 2014 electric DSM programs in Proceeding No.10A-554EG (Decision No, C11-0442). A Disincentive Offset of \$3.2 million (grossed up for income taxes ¹⁷) is awarded when Public Service achieves 80% of the annual energy savings goal. The Disincentive Offset increases to \$5.0 million when Public Service achieves 100% of the annual energy savings goal. The Performance Incentive is 1% of net economic benefits ¹⁸ when the Company achieves 80% of the annual energy savings goal, and escalates to 2% at 85 % of the energy savings goal, 3% at 90% of the energy savings goal, 4 % at 95% of the energy savings goal, and 5% at 100% of the energy savings goal. The Performance Incentive share of net economic benefits continues in a pattern where each 5% increase in energy savings achievement above 100% achievement of the annual energy savings goal results in a 1% addition to the Company's share of net economic benefits, up to a maximum of 15% at 150% of goal. The combination of the pre-tax Disincentive Offset and the Performance Incentive cannot exceed \$30 million. That total financial incentive is recovered in the year following the 2014 performance year.

Based upon the Company's achievement of 391.6 GWh and net benefits of \$158,681,084, the total Disincentive Offset and Performance Incentive for 2014 was not limited by the \$30 million cap. Table 10 below summarizes the Company's financial incentive for electric DSM.

Table 10: Summary of 2014 Electric Incentive

	Amount
Disincentive Offset	\$5,000,000
Performance Incentive	\$7,905,183
Total	\$12,905,183

The full calculation of the Company's financial incentive for electric DSM is shown in Table 11 below.

¹⁷ Combined Federal and State income tax rate in 2014 was 38.01%.

¹⁸ A minor adjustment is made for market transformation programs, allowing for the costs of these programs to be excluded from net economic benefits.

Table 11: Public Service 2014 Electric DSM Incentive

Disincentive Offset (Grossed-up for Income Taxes)	\$5,000,000
Performance Incentive Calculation	
Approved 2014 kWh Goal ¹⁹	375,000,000
kWh from YE Achievements	391,615,207
Net Economic Benefits from YE Achievements	\$133,353,640
Net Economic Benefits Adjustments	
Total Low-Income Allowance	\$562,859
Total Market Transformation Allowance from YE Achieve.	\$2,379,762
	•
FINAL Net Benefits from YE Achievements	\$136,296,261
% of Goal Achieved	104%
% of Net Benefits Awarded	5.8%
Performance Incentive	\$7,905,183
Total Incentive - Subject to CAP	\$12,905,183
<u> </u>	
Incentive Cap (Subject to Hard Cap of \$30,000,000)	\$30,000,000
Total 2014 Proposed Electric Financial Incentive Pre-Tax	\$12,905,183

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 expenditure, or 20% of net benefits, whichever is less. For 2014, the natural gas incentive is calculated to be \$3,126,255. This bonus is at the expenditure cap of \$3,126,255 and below the net benefits cap of \$5,061,722. In addition, the Company is filing for an acknowledgement of lost revenues associated with gas DSM programs of \$543,863 for a total award of \$3,670,118. The full calculation of Public Service's 2014 Natural Gas Incentive is detailed in Table 12 below.²⁰

¹⁹ See Table 1 of Public Service Company of Colorado's Notice of Filing of the Updated 2014 DSM Plan.
²⁰ "The calculation of the acknowledgment of the last revenues and of the gas bonus is not to be otherwise affected by the interim extension of the Gas DSM Plan and is proposed to be calculated as set forth in Rule 4 CCR 723-4-4754," per Decision No. R14-0389 (Proceeding No. 13A-0773EG), Paragraph 15, pg. 7.

Table 12: Public Service 2014 Natural Gas Bonus and Acknowledgement of Lost Revenue

Approved Energy Target (Goal)		558,465	Dekatherm per yer		1
Energy Target Achieved - YE Forecast		606,995	Dekatherm per yer		
% of Energy Target Achieved % of Energy Target Achieved		108.7%	Dekamerin per yer		
70 Of Energy Target Memoved		100.770		Dth	Spend
Approved Savings Target		44,210	Dekatherm per \$1M	558,465	\$12,632,092
Savings Target Achieved - Portfolio Total		48,540	Dekatherm per \$1M	606,995	\$12,505,018
Savings Target Achieved - Low-Income Program Adjustmen	its	10,5 10	Бекаспени рег фил	000,223	Ψ12,303,010
Energy Savings Kit				8,721	\$92,284
Multi-Family Weatherization				10,716	\$617,666
Non-Profit Energy Efficiency				3,700	\$510,316
Single-Family Weatherization				51,748	\$2,103,202
Total Savings Target Achieved - Low-Income Program		22,532	Dekatherm per \$1M	74,884	\$3,323,468
Adjustments		,		, ,,,,,,,,	πο,ο=ο, ιοο
Savings Target Achieved - Adjusted*		57,954	Dekatherm per \$1M	532,110	\$9,181,550
Total DSM Expenditures	\$ 1	2,505,018		, , ,	" · y · · y · · ·
The second secon	"	- , ,-			
Energy Factor		14.0%			
Savings Factor	1.3	10886081			
% of Net Benefits Awarded		18.4%	= Energy Factor * Savings	Factor	
Net Economic Benefits Achieved	\$2	4,686,973			
Net Economic Benefits Adjustments					
Energy Savings Kit	\$	-			
Multi-Family Weatherization	\$	324,243			
Non-Profit Energy Efficiency	\$	251,332			
Single-Family Weatherization	\$	-			
Low-Income Allowance from Plan	\$	575,574			
FINAL Net Economic Benefits Achieved	\$25	5,262,547			
Incentive Cap	\$	3,126,255	= 20% of net economic be		
			expenditures (\$3,126,255),	whichever is l	ess
Tatal 2014 Days and Car Eigensial Languiss Day Tay	Φ.	2 126 255			
Total 2014 Proposed Gas Financial Incentive Pre-Tax	Þ	3,126,255			
Business/Residential Allocation			0/0		
Business Actual Savings (Dth)		184,688	30%		
Residential & Low Income Actual Savings (Dth)		422,306	70%		
Total Savings		606,995	100%		
1000 0000000		000,223	10070		
Allocated Bonus					
Business		951,215			
Residential & Low Income		2,175,040			
Total		3,126,255			
Acknowledgement of Lost Revenue [ALR] Calculation:					
Dollar Value Per Therm					
Business (Non-residential)	\$	0.10238			
Residential	\$	0.08401			
12-Month Therm Reduction Impact From 2014 Program		101222			
Business (Non-residential)		1,846,882			
Residential		4,223,064			
ALR Totals					
Business (Non-residential)	\$	189,084			
Residential	\$	354,780			
Total ALR	\$	543,863			
	\$	3,670,118			
Total Gas Bonus and ALR					

Business Program

The Company's Business Program—for commercial and industrial customers of all sizes—offers a broad portfolio of DSM products 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 primary components:

- 1. *Prescriptive products* focus on the most common equipment.
- 2. *Custom products* encourage savings from unique situations, often involving newer technologies or measures.
- 3. Study and educational products help customers identify energy efficiency opportunities.

Electric

In 2014, the performance of the electric products in the Company's business program achieved 87% of the net generator kWh target. Much of the performance deficit was due to Small Business Lighting; the new third-party implementer for the product spent much of the first half of 2014 on the transition. Furthermore, the product was no longer able to claim energy saving achievements from fluorescent T12 lighting retrofits, for the first time in 2014, which had been a foundational measure for the product. Lighting Efficiency was the largest contributor to business program achievements, as anticipated; followed by New Construction and Process Efficiency products due to strong pipelines initiated in 2013. Additionally Compressed Air Efficiency, Computer Efficiency, Data Center, and Energy Management Systems, exceeded their electric savings targets due to improvements in the economy and increased activity with trade partners and manufacturers.

A summary of the Company's business program achievements for electric DSM products is shown in Table 13a below.

Table 13a: 2014 Business Program – Electric DSM Products (Budget to Actual)

	1					1					
		Bud	lgets / Tar	gets			A	chievemen	its		
Business Program - 2014	Electric Participants	Electric Budget	Net Gen. kW	Net Gen. kWh	Electric MTRC Test Ratio	Electric Participants	Electric Expenditures	Net Gen. kW	Net Gen. kWh	Electric MTRC Test Ratio	
Commercial Refrigeration Efficiency	1,890	\$2,149,734	994	9,257,997	1.49	570	\$1,090,816	550	5,532,444	1.13	
Compressed Air Efficiency	124	\$770,990	479	2,465,669	1.36	41	\$561,783	442	3,190,071	1.97	
Computer Efficiency	2,919	\$536,001	569	5,342,267	1.77	4,417	\$711,975	1,065	7,850,285	1.63	
Cooling Efficiency	745	\$3,180,282	3,426	8,686,056	1.85	187	\$2,094,968	1,455	3,984,812	4.52	
Custom Efficiency	34	\$1,791,404	1,266	8,894,756	1.80	13	\$1,631,570	478	3,912,244	1.09	
Data Center Efficiency	16	\$1,115,347	716	7,385,370	2.28	10	\$1,155,750	762	10,872,596	1.38	
Energy Management Systems	39	\$1,089,255	173	7,344,207	1.51	46	\$1,110,915	49	8,301,365	1.73	
Heating Efficiency	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lighting Efficiency	1,584	\$10,679,783	12,457	75,288,784	1.94	1,608	\$10,975,466	12,208	71,534,278	1.81	
Motor & Drive Efficiency	843	\$4,494,467	2,836	16,967,161	1.70	280	\$3,361,865	2,269	14,310,627	1.97	
New Construction	88	\$9,571,681	9,690	32,720,004	1.36	109	\$7,664,054	8,444	34,134,139	1.42	
Process Efficiency	12	\$2,623,240	1,464	22,239,875	2.15	16	\$3,442,173	3,420	26,002,866	2.25	
Recommissioning	112	\$1,130,264	802	6,692,473	1.33	29	\$696,358	305	5,156,987	1.84	
Segment Efficiency	54	\$830,569	533	4,190,451	1.38	6	\$202,585	24	117,806	0.52	
Self-Directed Custom Efficiency	12	\$1,382,803	1,190	8,890,332	1.77	2	\$397,851	507	2,414,247	2.77	
Small Business Lighting	525	\$5,994,148	4,459	27,339,812	1.62	399	\$3,015,630	2,207	11,626,207	1.44	
Standard Offer	0	\$7,395	0	0		4	\$327,789	394	1,958,258	0.94	
Business Program Total	8,997	\$47,347,362	41,057	243,705,215	1.71	-	\$38,441,547	34,577	210,899,234	1.63	

Natural Gas

In 2014, the performance of the natural gas products in the Company's business program led to achievements of 144% of the Dth savings target. These achievements—aided by increased construction growth and improved economic conditions—resulted in higher achievements than targeted in the Company's New Construction, Custom Efficiency, and Energy Management Systems products.

Natural gas spending in the business program was 89% of budgeted levels due to lower participation in Commercial Refrigeration, Heating Efficiency, and the Custom Efficiency products.

A summary of the Company's business program achievements for natural gas DSM products is shown in Table 13b below.

Table 13b: 2014 Business Program – Natural Gas DSM Products (Budget to Actual)

			Budgets	/ Targets				Achievements					
Business Program - 2014	Gas Participants	Gas Budget	Net Annual Dth Savings	Annual	Gas MTRC Test Net Benefits	Gas MTRC Test Ratio		Gas Expenditures	Net Annual Dth Savings		Gas MTRC Test Net Benefits	Gas MTRO Test Ratio	
Commercial Refrigeration Efficiency	1,220	\$50,234	6,892	137,209	\$812,806	11.67	92	\$7,455	1,433	192,248	\$243,954	24.55	
Compressed Air Efficiency													
Computer Efficiency													
Cooling Efficiency													
Custom Efficiency	5	\$144,633	5,519	38,161	\$128,225	1.47	7	\$82,626	16,098	194,827	\$1,062,346	2.90	
Data Center Efficiency													
Energy Management Systems	10	\$32,232	2,960	91,835	\$126,190	2.60	22	\$40,843	8,599	210,545	\$313,816	1.82	
Heating Efficiency	202	\$612,121	25,354	41,420	\$203,299	1.11	103	\$526,047	17,170	32,639	\$204,884	1.16	
Lighting Efficiency													
Motor & Drive Efficiency													
New Construction	56	\$761,654	82,049	107,724	\$1,915,270	1.43	76	\$776,962	140,136	180,364	\$5,463,920	1.99	
Process Efficiency								\$258			(\$258)		
Recommissioning	16	\$16,361	2,509	153,348	\$53,267	2.63	17	\$28,678	1,201	41,865	\$30,019	1.84	
Segment Efficiency	13	\$26,766	2,940	109,858	\$81,793	1.75	1	\$424	0	0	(\$673)		
Self-Directed Custom Efficiency													
Small Business Lighting				,									
Standard Offer	0	\$1,000	0	0			1	\$2,342	52	22,273	(\$1,329)	0.75	
Business Program Total	1,522	\$1,645,000	128,224	77,948	\$3,320,850	1.48	-	\$1,465,635	184,688	126,012	\$7,316,679	1.94	

Business Products

The following provides a brief summary of the performance of each DSM business product in 2014.

Commercial Refrigeration Efficiency

Refrigeration-Kokopelli-Liquors-Case-Study.pdf.

The Commercial Refrigeration Efficiency product offers refrigeration maintenance and upgrades to commercial customers with significant refrigeration loads, notably restaurants, and grocery, convenience, and liquor stores. The product offers four major components to provide customers with the resources necessary to reduce their energy usage. These include a free energy assessment, direct install of complimentary energy saving measures, identification of prescriptive measures, and proactive project management to assist customers in implementing energy efficient measures.

The Company completed a refrigeration case study with a 2014 participant, highlighting significant annual cost savings and a short payback period: http://www.xcelenergy.com/staticfiles/xe/Marketing/Files/CO-Bus-Commercial-

Deviation from Target

In its first full calendar year as a DSM product offering, the product achieved 60% of its filed electric energy savings target and 21% of its filed natural gas savings target. Although the product did not meet its targets, with nearly 2 GWh of electric savings during Q4-2014, the product shows growth opportunity with a strong project pipeline for 2015. Lower than budgeted electric and natural gas expenditures reflected the level of energy savings achieved.

Compressed Air Efficiency

The Compressed Air Efficiency product helps customers identify and address inefficiencies in their compressed air systems. The product encourages the repair and redesign of existing systems and the purchase of efficient options for new and replacement systems. The product has three components:

- 1. Prescriptive rebates for the most common high-efficiency options such as no-loss air drains and for certain Variable Frequency Drive (VFD) compressors.
- 2. Rebates for studies that help customers identify efficiency opportunities from fixing to redesign or replacement of system components.
- 3. Custom rebates for implementation of unique improvements identified by studies. Improvements can include a wide range of capital purchases and "process" improvements, such as piping modifications or horsepower reductions.

Trade Partners support the product through direct equipment sales and system studies.

Deviation from Target

The product exceeded its filed 2014 electric energy savings targets with expenditures under budget. The product capitalized on a strong pipeline of projects at 2013 year end. A market with more competition between trade partners saw higher interest in their support and influence for the product throughout the year. With trade partners' focus on large industrial customers, twenty account managed studies/custom projects helped the product exceed forecasted achievements.

Computer Efficiency

The Computer Efficiency product offers prescriptive electric rebates to business customers who install Virtual Desktop Infrastructure (VDI) and personal computer (PC) Power Management software. The product is marketed directly to business customers through Trade Partners and sales channels. The Company worked to propel participation in the downstream prescriptive rebates in 2014 with sales training, digital marketing and creating informative literature.

Computer Efficiency also offers incentives to desktop PC manufacturers that design, manufacture, and sell units with energy-efficient power supplies to business customers in Xcel Energy's electric service territory. These incentives are marketed through a third-party implementer that works directly with PC manufacturers to track equipment sold in the PSCo service territory.

Deviation from Target

The product significantly exceeded its electric energy savings and participation targets for 2014. This achievement can be attributed to the strong partnerships that have been developed with PC manufacturers. The product also exceeded its budget in 2014 due to rebate expenditures correlated to savings achievements.

Cooling Efficiency

The Cooling Efficiency product offers incentives to customers who purchase and install high efficiency cooling equipment. Rebate dollars and study funding are offered to assist in "buying down" the incremental cost associated with purchasing high efficiency equipment, and to shorten the associated payback period. Customers may qualify for 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 Target

The product did not meet its electric energy savings target for 2014. New measures added in 2014 did not see any savings as had been anticipated, but did realize significant savings within Commercial Refrigeration Efficiency. A cooling expo was held in the second quarter which highlighted advanced controls for roof top units, but one project was submitted. A cooling bonus of 25% was offered for all cooling measures during the last four months of 2014 which did generate additional savings.

Changes in 2014

For 2014, the Company moved Electronically Commutated Motors (ECMs) from Motor and Drive Efficiency to Cooling Efficiency and Anti-Sweat Heater Controls from Custom Efficiency to Cooling Efficiency.

Custom Efficiency

The Custom Efficiency product is designed to provide rebates on a wide variety of equipment and process improvements that do not fall within the Company's prescriptive rebate products. All Custom Efficiency projects require pre-approval before customer and/or contractor purchase and installation, and must pass the MTRC test as part of that analysis. This process is in place to help ensure that participation in the product significantly influences the project and that rebates are awarded to projects that are technically and financially sound.

Deviation from Target

The Custom Efficiency product did not meet its electric savings targets in 2014, largely due to a significant project being delayed until 2015; but the product did exceed its natural gas targets.

Data Center Efficiency

The Data Center Efficiency product offers evaluations and rebates to customers who make energy saving improvements to a data center. The product encourages a holistic approach by providing energy efficiency information, site evaluations, and project analyses for customers. The Company's portfolio of prescriptive and custom rebates is also available to data center customers to encourage the implementation of additional energy saving upgrades.

Deviation from Target

The Data Center Efficiency product significantly exceeded its electric savings target in 2014. The successes of 2014 were largely driven by projects with flat plate heat exchangers, variable frequency drives, and electrically commutated plug fans.

Challenges continued in regard to leveraging incentives with data center facility managers and operational management, while balancing concerns of risk and reliability, however, the product fared well due to the existing customer project pipeline and prescriptive rebate opportunities.

Energy Management Systems

The Energy Management Systems (EMS) product is designed to encourage customers to install or upgrade automated building controls. An EMS system helps reduce a building's on- and off-peak energy usage through controls and sensors that are centrally operated. Through automated controlling such systems may control the heating, cooling, ventilation and lighting of a facility.

The product covers energy management systems in an existing building, replacement of an obsolete energy management system, and adding functionality and/or control points to an existing system. Ineligible measures include duplicate system functions, in-room thermostats, set-point adjustment, and the rebalancing of existing systems. Systems installed as part of new construction projects are also ineligible.

The Company completed a case study in 2014 on a high-impact project completed in downtown Denver: http://www.xcelenergy.com/staticfiles/xe/Marketing/Files/EMS-CO-Case-Study-1670-Broadway.pdf.

Deviation from Target

The EMS product exceeded its electric and natural gas energy savings targets, with electric expenditures slightly over budget. The product's energy savings were substantially greater than the prior year, mainly due to a post-monitored office building, reaching over 2 GWh in savings. While the product's energy savings (kWh) performed well, kW was significantly lower than the filed target due to participating projects not capturing savings during the system peak.

Heating Efficiency

The Heating Efficiency product provides rebates for retail natural gas business customers who purchase high efficiency natural gas or dual-fuel commercial equipment for heating or process loads. Product rebates are designed to promote the installation of high-efficiency

boilers, commercial water heaters, pipe insulation, boiler tune-ups, and boiler system auxiliary equipment that improves combustion and seasonal efficiency. The Company communicated with customers and contractors via low-cost and cost efficient tactics such as email, newsletters, social media, conferences, a school–focused case study, as well as engaged the Heating Advisory Board.

Deviation from Target

Despite leveraging an integrated, low-cost communications plan, the product did not meet its participation or natural gas savings targets in 2014. Capital-intensive measures with longer payback periods continue to be less attractive to customers in the current environment of low-cost natural gas.

Changes in 2014

The Company discontinued Plan B rebates for new boiler systems (those less than 25 years old). Applications were accepted through March 31, 2014 and any boilers submitted after that date were eligible for Plan A rebates.

Lighting Efficiency

The Lighting Efficiency product offers rebates to customers who purchase and install qualifying energy efficient lighting in existing or new construction buildings. Prescriptive rebates are offered to encourage customers to purchase energy efficient lighting by lowering the up-front premium costs associated with this equipment. Custom Efficiency Lighting and Lighting Redesign rebates are also available for energy-saving lighting solutions not included in the prescriptive rebate menu, and require pre-approval prior to purchasing equipment and beginning a project.

Deviation from Target

The product fell short of reaching its electric savings target in 2014 by five percent. Many customers are interested in retrofitting to LED technology and waiting until the fixture costs drop to make the investment. The product ran a 30% lighting rebate bonus during third and fourth quarters to bring in identified savings from the product pipeline, which successfully led to an additional 15 GWh of savings prior to year-end.

Changes in 2014

In 2014 new LED rebate measures were added to the retrofit and new construction prescriptive product offerings. These new rebate measures included LED parking garage fixtures, LED troffer fixtures, and troffer retrofit kits. In addition, a DesignLight Consortium (DLC) requirement was added for LED products not covered by ENERGY STAR, those measures must be listed by the DLC within the appropriate category to qualify for a rebate.

60-Day Notice(s)

In January 2014, the Company posted a 60-Day Notice to expand the product's prescriptive LED rebates under the 2013 DSM Plan (which was still in place during 2014 through April 30). In December, the Company posted another 60-Day Notice to continue the new prescriptive LED rebates under the 2014 DSM Plan. In addition, the December notice included launch of the midstream distributor rebate approach through offering—Business LED Instant Rebate; however, the offering did not impact 2014. (Lighting standards changes implemented through these Notices also apply to the Small Business Lighting product).

Motor and Drive Efficiency

The Motor & Drive Efficiency product is designed to encourage customers to purchase high efficiency motors and variable frequency drives (VFDs) used on fans, pumps, and eligible industrial equipment. The Company offers prescriptive rebates to customers who install qualifying equipment, and custom rebates to those customers whose projects do not meet the prescriptive criteria.

Deviation from Target

Electric energy savings achievements were below target, yet the product continued to be cost-effective due to expenditures also being below budget. On average, projects continued to decline in average horsepower in 2014, as many of the larger prescriptive projects were captured within the Company's holistic products, such as Process Efficiency and Data Center Efficiency. However, achievement from small customers grew by 24% over the prior year, and small customers' proportion of the total achievement was twice that of the prior year. Marketing efforts focused on small businesses and office buildings, and VFD participation was strong within those segments.

Changes in 2014

For 2014, the Company moved measures related to Electronically Commutated Motors (ECMs) to other DSM products. ECM measures had contributed over 5% of this product's achievement in the prior year.

The Company further improved the accuracy and quality of savings by prohibiting participation for VFDs on deep well pumps.

New Construction

The New Construction product's mission is to help business customers prioritize energy efficiency when constructing new buildings. By providing whole building energy analysis for larger buildings and checklists of energy savings opportunities for smaller buildings, we help customers achieve their energy and sustainability goals.

The Energy Design Assistance (EDA) component of the New Construction product was the primary offering to customers in 2014. Features include comprehensive energy consulting services in support of integrated design processes by providing computer modeling of planned designs; funding to offset the cost of design time associated with increased energy analyses; financial rebates to improve the cost-effectiveness of packages of energy-efficient measures; and field verification to ensure that the strategies are installed per the design intent.

The Energy Efficient Buildings (EEB) component of the product is a combination of prescriptive measures and custom analyses that allows customers to package numerous measures and fill out just one application versus multiple applications. The EEB process provides preliminary rebate amounts per measure, giving the customer the tools to make early decisions to influence better energy efficiency equipment choices are also available for non-prescriptive measures such as lighting, building envelope and custom.

In 2014, the U.S. Green Building Council's (USGBC) staff and the Board of Directors voted Xcel Energy as the Best Energy Service Provider/Utility Award in the nation. The USGBC also ranked Xcel Energy (Colorado) as #8 on the Top Ten list of states for new LEED certifications. The New Construction product has led over 110 new/renovated building projects to achieve LEED certifications since its inception.

In addition, the EDA component of the New Construction product was ranked #11 out of "Top 22 technologies and trends of 2014" by E Source. EDA successfully improved the energy efficiency of commercial new construction projects by developing a unique tracking system to improve the program's cost-effectiveness and to make it available to more customers. The system—called the Energy Design Assistance Project Tracker (EDAPT)—incorporates the National Renewable Energy Lab's (NREL) OpenStudio building energy simulation environment with a web-based project management workflow solution to standardize the energy analysis platform and automate the reporting process.

Deviation from Target

The product exceeded its electric and gas savings targets in 2014 due to an improvement in the economy which fostered more new construction projects, as well as an increase in the number of energy modeling companies that were deemed qualified to participate as EDA vendors.

Process Efficiency Product

Process Efficiency targets energy-intensive processes at large facilities with 2 GWh or more of potential energy savings. The product is primarily intended to identify and influence improvements on large systems not being evaluated through the Company's Custom Efficiency or prescriptive products, and establish business practices that drive future additional conservation measures.

The Process Efficiency product is delivered in three phases, providing customers with the resources necessary to drive conservation through the development and implementation of a holistic, sustainable energy management plan.

- Phase 1 identifies energy saving opportunities through a high-level energy diagnostic session.
- Phase 2 further defines those energy saving opportunities identified in the previous phase and develops an actionable energy management plan.
- During Phase 3 the Company works with the customer to implement energy saving opportunities included in the energy management plan.

Participation in this product results in not only a list of conservation opportunities with a plan for implementation of those measures, but also involves integrating energy efficiency into how the customer completes their daily business practices.

Deviation from Target

The product exceeded its 2014 electric savings targets, reflecting implementation of customers' larger and longer lead-time projects. Expenditures for the product were over budget, reflecting the increase in project implementation. The product continues to realize a very favorable MTRC, which demonstrates the value of this in-depth service.

Recommissioning

Public Service's Recommissioning product is designed to assist electric and/or natural gas business customers to improve the efficiency of their existing building operations by identifying existing functional systems that can be "tuned up" to run as efficiently as possible through low- or no-cost improvements. Recommissioning consists of two main steps: (1) diagnosis (studies) and (2) implementation. Public Service offers rebates for recommissioning studies and for the implementation of recommissioning measures.

Deviation from Target

The product achieved 77% of its electric energy savings target and 48% of its natural gas savings target in 2014. Small Building Tune-Up was launched late, under the 2014 DSM Plan in May, leading to a gap in forecasted electric savings. Electric expenditures were in line with savings. Natural gas Recommissioning study participation was far greater than anticipated for 2014, yet projects recommended based on study results did not materialize in 2014, leaving an imbalance between natural gas expenditures and savings.

Changes in 2014

In 2014, the Company added a Small Building Tune-Up measure. This path is a less expensive study/implementation option targeted to buildings less than 75,000 square feet. An onsite study is performed focusing on a shorter checklist of measures, along with the study vendor completing fixes on-site as appropriate.

Segment Efficiency

The Segment Efficiency product was designed to target specific market segments by offering a comprehensive assessment of building systems and operations. The product targeted the commercial real estate sector, with emphasis on buildings of at least 50,000 square feet.

The product will not continue in 2015. Energy savings measures identified in previous studies will be distributed to the appropriate end use products.

Deviation from Target

The Segment Efficiency product did not meet its energy savings or participation goals in 2014. While the studies conducted in 2014 identified significant savings potential, capital-intensive measures were not implemented; customers chose to implement lower cost measures with short payback times.

Changes in 2014

A comprehensive evaluation was conducted in 2013 which suggested eliminating the customer study fee. The study fee was discontinued from August 1, 2014 through the end of the year. As a result, 15 additional studies were conducted, but no additional savings materialized. This is the last year that the Segment Efficiency product will be offered.

Self-Directed Custom Efficiency

The Self-Directed Custom Efficiency product provides large commercial and industrial electric customers in Colorado the opportunity to control all stages of their energy saving project's rebate application process. The product allows the customer to perform all of the required activities and incur all the costs for the identification study, design, engineering, measurement & verification (M&V), and reporting work associated with the energy saving projects. These steps are comparable to the Company's Custom Efficiency product but because the customer is responsible for the majority of the administrative and engineering activities, the customer is eligible to receive a higher rebate than is offered through the Custom Efficiency product. The Company's role in this process is one of support through the project stages including verification of customer eligibility, pre-approval of proposed projects, development of the approved M&V plan, and verification of project completion prior to rebate distribution.

The product is open to those customers who have an aggregated peak load of at least 2 MW in any single month and an aggregated annual energy consumption of at least 10 GWh.

Deviation from Target

The product fell short of its 2014 electric savings targets due to several large projects that were forecasted for completion being postponed by customers until 2015. Although the forecast is based on pipeline information, actual achievement is dependent on the pace the customer determines for project completion.

Small Business Lighting

The Small Business Lighting product offers free lighting audits, recommendations for energy-saving measures, special services, and attractive cash rebates to business customers who purchase and install energy efficient lighting equipment in existing facilities. The product is available to businesses with peak demand of up to 400 kW, and seeks to overcome barriers that often prevent small businesses from investing in energy efficient lighting, including limited financial resources and time, low awareness of lighting equipment, and lack of access to quality contractors.

Deviation from Target

The Small Business Lighting energy savings target was significantly increased between 2013 and 2014, and the product did not meet its 2014 target. Following a Request for Proposals, a new third-party implementer was selected in Q3-2013. The incumbent provider did not win and thus the first half of 2014 was spent concentrating on the transition to a new third-party implementer, which contributed to the decreased savings achievement from past years. Additionally, the product was no longer able to claim energy saving achievements from fluorescent T12 lighting retrofits, for the first time in 2014, which had been a foundational measure for the product. In an effort to increase energy savings and encourage customers to implement projects in 2014, a successful 30% rebate bonus was launched on September 1, 2014.

60-Day Notice(s)

The Small Business Lighting product adopted changes enacted under the Lighting Efficiency product 60-day Notices in 2014. These changes included the introduction of prescriptive rebates for LED Parking Garage Fixtures and LED Troffers, as well as the adoption of the Designlights Consortium Qualified Product List to ensure that all LED fixture products receiving prescriptive rebates have been tested to be of high quality.

Standard Offer

The Standard Offer product was designed to provide customers with an opportunity to identify and implement a comprehensive package of cost-effective efficiency measures using their internal resources and funding, or using outside resources such as those from an Energy Services Company (ESCO). Working with an ESCO provides customers an alternative funding mechanism for their energy efficiency projects that was not otherwise available through the Company's other products.

In spite of the perceived advantages of the product, business customers and trade partners consistently demonstrated a clear preference for other DSM products that competed directly with Standard Offer's target market. Subsequently the product was closed through a 90-Day Notice in 2013.

Deviation from Target

Although the product was discontinued in 2013, the Company had anticipated that a small amount of additional energy savings would result in 2014 from a few projects still undergoing required M&V. These projects have since been completed and no further energy savings are anticipated going forward.

Residential Program

The Residential Program 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 products 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.

Electric

In 2014, the residential electric program far exceeded its targeted savings within the filed budget. The following products exceeded their electric energy savings targets: ENERGY STAR® New Homes, High Efficiency Air Conditioning, Home Lighting & Recycling, Home Performance with ENERGY STAR, Refrigerator Recycling, School Education Kits and Water Heater Rebate. The Home Lighting & Recycling product led performance in the residential electric segment, with more than 358,876 participants, resulting from successful advertising and promotions.

A summary of the Company's residential program achievements for electric DSM products is shown in Table 14a below.

Table 14a:	Residential Program -	- Electric DSM	Products	(Budget to A	(ctual)
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		Budg	gets / Targ	gets			Ac	hievements	ı	
Residential Program - 2014	Electric Participants	Electric Budget	Net Gen. kW	Net Gen. kWh	Electric MTRC Test Ratio		Electric Expenditures	Net Gen.	Net Gen. kWh	Electric MTRC Test Ratio
ENERGY STAR New Homes	1,924	\$631,958	429	1,689,054	1.38	2,228	\$782,041	990	2,184,822	2.20
Evaporative Cooling Rebate	4,525	\$2,436,861	6,335	3,927,304	7.93	3,344	\$2,360,472	4,785	2,987,263	5.73
Heating System Rebate	2,500	\$306,833	186	2,371,209	1.33	1,642	\$224,936	127	1,551,556	1.28
High Efficiency Air Conditioning	3,651	\$2,780,206	2,220	2,000,075	0.93	3,191	\$3,270,423	3,163	2,483,335	0.91
Home Lighting & Recycling	838,750	\$8,379,231	11,367	76,523,940	2.97	358,876	\$8,982,760	16,722	123,263,649	2.43
Home Performance with ENERGY STAR	497	\$230,400	132	295,245	1.14	305	\$184,432	167	374,182	0.95
Insulation Rebate	1,400	\$378,696	710	821,218	1.08	338	\$79,218	128	145,201	0.63
Pool Pump	1,265	\$704,843	793	2,196,769	1.33	80	\$264,071	67	184,116	0.43
Refrigerator Recycling	8,000	\$1,307,459	481	4,214,464	1.63	7,191	\$1,083,658	539	4,723,831	2.03
School Education Kits	38,500	\$1,539,289	423	4,705,069	1.89	38,691	\$1,392,049	435	4,911,161	2.00
Energy Efficiency Showerhead	2,255	\$33,980	0	696,290	16.91	6,036	\$46,459	0	1,075,530	15.40
Water Heater Rebate	50	\$39,288	9	76,474	0.63	48	\$43,670	17	148,757	0.97
Residential Program EE Total	903,317	\$18,769,044	23,083	99,517,110	3.11	-	\$18,714,190	27,139	144,033,403	2.46
Saver's Switch	12,000	\$12,420,170	13,261	227,759	2.00	10,024	\$11,846,025	11,172	209,763	1.82
Residential Program Total	915,317	\$31,189,214	36,345	99,744,869	2.76	-	\$30,560,215	38,311	144,243,166	2.32

Natural Gas

The residential natural gas program achieved its energy savings target but had corresponding expenditures above the budget due to higher than forecasted participation for nearly every residential natural gas product. ENERGY STAR New Homes and Home Performance with ENERGY STAR in particular had significantly higher expenditures, as those products target more comprehensive, whole-building measures. Additionally, 1.5% of total residential natural gas DSM rebates in 2014 were attributed to Colorado Flood Victim Rebates – primarily higher rebates for homeowners who rebuilt with high efficiency furnaces and water heaters. Insulation was the only product to fall short due of its energy savings target to

stricter trade partner participation requirements implemented in mid-2013 and longer project payback periods due, in part, to the continued low cost of natural gas.

A summary of the Company's residential program achievements for natural gas DSM products is shown in Table 14b below.

Table 14b: Residential Program - Natural Gas DSM Products (Budget to Actual)

			Budgets	/ Targets				Achievements						
Residential Program - 2014	Gas Participants	Gas Budget	Net Annual Dth Savings		Gas MTRC Test Net Benefits	Gas MTRC Test Ratio	Gas Participants	Gas Expenditures	Net Annual Dth Savings		Gas MTRC Test Net Benefits	Gas MTRC Test Ratio		
ENERGY STAR New Homes	2,544	\$2,546,788	95,294	37,417	\$2,361,788	1.38	3,295	\$3,766,073	97,473	25,882	\$838,347	1.09		
Evaporative Cooling Rebate														
Heating System Rebate	4,950	\$711,142	38,645	54,342	-\$906,566	0.78	3,156	\$648,132	44,062	67,983	\$1,716,165	1.89		
High Efficiency Air Conditioning														
Home Lighting & Recycling														
Home Performance with ENERGY STAR	500	\$181,506	8,439	46,494	\$32,827	1.06	348	\$325,130	15,218	46,806	\$91,958	1.08		
Insulation Rebate	4,000	\$860,363	47,640	55,372	\$88,871	1.03	786	\$284,748	16,976	59,618	-\$417,083	0.76		
Pool Pump														
Refrigerator Recycling														
School Education Kits	38,500	\$617,815	30,131	48,770	\$4,017,797	6.10	38,691	\$430,699	33,104	76,862	\$5,541,011	10.46		
Energy Efficiency Showerhead	18,245	\$252,620	20,341	80,520	\$2,994,380	9.85	31,674	\$411,021	42,360	103,060	\$7,430,649	14.31		
Water Heater Rebate	1,200	\$158,453	3,816	24,084	-\$432,809	0.42	1,672	\$214,213	6,439	30,060	-\$241,430	0.69		
Residential Program Total	69,939	\$5,328,687	244,306	45,847	\$8,156,288	1.50	-	\$6,080,016	255,633	42,045	\$14,959,617	1.92		

Residential Products

The following provides a brief summary of the performance of each residential DSM product in 2014.

ENERGY STAR New Homes

The ENERGY STAR New Homes product provides homebuilders of single-family and small multi-family homes with an incentive to exceed local building codes and common construction practices. Homebuilders are encouraged to look at the "whole-house" as a system when considering deployment of energy saving construction methods and installation of energy efficient appliances. This leads to significantly higher energy savings for homeowners along with lower energy bills, fewer maintenance concerns, higher resale value, and a more comfortable, quiet home. The product rules requires each home to be inspected and rated by a RESNET accredited home energy rater who ensures the energy efficiency measures have been correctly installed in the home.

Deviation from Target

The product was fully subscribed by September 18 and paused taking new enrollments at this time. The 3,295 participants (homes) combined to help the product exceed the year-end kWh savings target by 29% and Dth savings by 2%. In order to keep the product open as long as possible and meet the concerns of stakeholders, the Company was able to allot an additional \$1.22 M in gas spend and an additional \$150,000 in electric spend to the product from other DSM programs in the portfolio. As a result, year-end gas spend exceeded the target gas spend by 48%. For the same reasons discussed previously, electric spend exceeded the year-end target by 24%. The product was cost-effective.

Changes in 2014

Efforts were undertaken to more accurately align rebate spend with achieved product energy savings and improve overall product cost-effectiveness. Improving rebate spend was accomplished by clarifying the rebate eligibility requirement for homes built in jurisdictions with energy code requirements better than International Energy Conservation Code (IECC) 2009. The Company began calculating the Home Energy Rating System (HERS) Index for the reference home (rather than deeming the value) to allow a more accurate determination of the incremental capital cost for each home, which improved product cost-effectiveness.

60-Day Notice(s)

The changes noted above were described in a 60-Day Notice posted on June 24. The rebate eligibility clarification change was implemented on July 28, and the incremental capital cost calculation change was applied to all homes completed on or after January 1, 2014.

Evaporative Cooling

The Evaporative Cooling Rebate product provides cash rebates to electric customers who purchase high-efficiency evaporative cooling equipment for residential use. The product's primary objective is to encourage consumers, builders and trade partners to purchase residential evaporative cooling equipment in the place of less-efficient central air conditioning. For homes in dryer climates, such as Colorado, this equipment provides cooler, more comfortable air—like an air conditioner—but with significantly lower equipment, installation and energy use costs. The Company's electric customers can replace an existing evaporative cooler or air conditioner, or purchase a new first-time installed unit to qualify. There are three progressive tiers of rebates for Standard, Premium and Whole House evaporative cooling systems.

Deviation from Target

The product fell short of its electric savings target by over 20% in 2014. In the third quarter a contingency plan, including a 30% customer rebate bonus and higher trade incentives between April 1 and November 30, was implemented along with increased marketing to customers and trade, in an effort to improve participation. But the product faced a challenge in recruiting first-time standard evaporative cooling units, as well as whole house evaporative cooling systems, in the Denver Front Range zone.. The Grand Junction/Western Slope and Alamosa/Mountain regions both had participation rates equal to or slightly higher than 2013.

Heating System Rebate

The Heating System Rebate product provides cash rebates to the Company's customers who purchase high-efficiency heating equipment for residential use. Customers benefit because a high-efficiency furnace or boiler uses less energy and lowers monthly bills over the life of the equipment—typically 18 to 20 years. The rebate lowers the purchase price of the high-efficiency equipment and improves the project's payback.

Deviation from Target

The product exceeded its natural gas savings target and maintained expenditures within the budget. A majority of participants chose furnaces with higher average energy savings—95% Annual Fuel Utilization Efficiency (AFUE) and higher. The product fell short of its electric savings target and primarily due to the delayed launch of Electronically Commutated Motor (ECM) rebates, on May 1, 2014.

Changes in 2014

Effective May 1, the Company added \$100 rebates for ECMs, which offer significant electric savings compared to traditional furnace blower motors.

As a result of collaboration and negotiation with DSM Plan stakeholders, the Company began requiring registered HVAC contractors to acquire NATE Gas Heating technician certification to participate in the product, improving the quality and safety of installations.

At the end of 2014, the Company concluded bonus rebates designed to encourage 2013 flood victims who qualified for Individual FEMA Assistance to re-build with energy-efficient equipment. Since launching the flood bonus rebates in the fourth quarter of 2013, 408 residential homeowners—residing primarily in Boulder County—received bonus rebates covering 100% of the incremental capital cost of installing an energy-efficient furnace or boiler over a standard efficiency unit.

60-Day Notice(s)

The Company posted a 60-Day Notice on Month, Day which took effect June 6 to update the update the minimum residential furnace AFUE to 95%, in response to trade partner and stakeholder feedback. This change to the technical assumptions supports product cost-effectiveness.

High Efficiency Air Conditioning

The High Efficiency Air Conditioning product comprehensively addresses energy efficiency opportunities related to central air conditioning (A/C), air-source heat pumps (ASHPs), and ground source heat pumps (GSHPs). A participating North American Technical Excellence (NATE)-certified contractor must perform the improvement to earn the rebate. The product consists of three major components: equipment rebates, trade-in rebates, and quality.

Deviation from Target

The product achieved 124% of the electric savings target in 2014. This was due to strong participation, with the majority of the customers retiring their old A/C unit.

Product expenditures were over budget to accommodate customer rebates and contractor incentives. The Company continued to support contractors by offering A/C trainings, promotional items, and contractor recognition. The Company also supported contractors

interested in participating in the product by providing scholarships to those that passed the NATE A/C exam.

Changes in 2014

The technical assumptions, as shown in the Michaels Energy Review of PSCo's Colorado Deemed Savings Technical Assumptions (entered as Hearing Exhibit 4 in Proceeding No. 13A-0773EG), were used to calculate electric savings. Page 767 of the 2014 DSM Plan was intended to match the Michael's Energy recommendations, but an earlier version of the deemed savings sheet was inadvertently included in the Plan refiled in May 2014.

60-Day Notice

A 60-Day Notice was posted in July 2014 to add the Western Cooling Control device as a rebated measure. The device is available to customers with a Central A/C or ASHP that was installed in 2009 or prior. Customers that have the device installed by a participating contractor will earn a \$35 rebate per device.

Home Lighting & Recycling

The Home Lighting & Recycling product offers discounted prices, via upstream incentives, on compact fluorescent lights (CFLs) and light-emitting diodes (LEDs), as well as an environmentally-friendly way to dispose of spent CFLs. Energy efficient lights are an easy and low-cost way for customers to save energy and reduce their monthly electric bills.

The Company widely promoted the Home Lighting & Recycling product in 2014 through a variety of marketing channels, including television, radio, internet, print publications, bill inserts, and point-of-purchase displays. The Company collaborated with the Colorado Rockies and implemented an LED giveaway and sweepstakes at Coors Field. The Company also initiated several new sales promotions, community events, and CFL giveaways.

In 2014, the Company put more focus on LED bulbs, including through dedicated advertising, promotions, and events.

Deviation from Target

The product greatly exceeded its electric savings target. Expenditures were over budget, and yet proportionally less than the level of additional savings achieved. Significant achievements were made in growing LED sales to over 500,000 units, which increased overall expenditures over 2013.

Home Performance with ENERGY STAR

Home Performance with ENERGY STAR (HPwES) is a comprehensive, "whole house" retrofit product designed to give cash rebates to customers for implementation of measures identified during a Home Energy Audit. Customers must implement air sealing, attic

insulation, and energy-efficient lighting if recommended in their audit, and not previously completed.

Upon completion of the product improvements, a post-improvement verification inspection is conducted. The Company's third-party implementer is responsible for performing quality assurance on the in-home inspections, the home energy audit reports, and the audit itself. The implementer also provides customer support, contractor management, and oversight of the energy modeling software.

Deviation from Target

HPwES achieved its electric and natural gas savings targets in 2014. Electric expenditures were under budget. Natural gas budget was proportionate to the gas savings achieved. The success can be attributed to an increase to deeper energy savings per home than achieved in previous years, both for electric and natural gas savings. Additionally, outreach and education to the HVAC trade has increased overall electric savings participation in the product.

60-Day Notice(s)

The Company posted a 60-Day Notice in May 2014 to make changes to the HPwES product, including revised measure savings calculations and deemed savings assumptions. The primary driver behind the changes was to align HPwES' technical assumptions with other DSM product assumptions that have similar measures.

Insulation Rebate

The Insulation and Air Sealing rebate product offers prescriptive rebates to combination electric and natural gas customers, natural gas residential customers, or electric heat customers to increase the insulation and air sealing in existing single-family homes or one-to-four unit residential properties. To qualify for the rebate, customers must have the insulation professionally installed by a contractor with a Building Performance Institute (BPI) certification. The product is marketed primarily using trade partner communications, trainings, newsletters, and email. The product is also promoted via cross-marketing opportunities with the Company's other DSM products, such as Heating System Rebate and Consumer Education.

Deviation from Target

The product did not achieve its electric and gas savings or participation targets given increased barriers resulting from new contractor requirements for participation in the product. A low rebate value compared to the total project cost for many customers led to less participation than forecasted. Electric and natural gas expenditures were proportionate to the savings achieved. A limited-time promotional rebate, bundled with the Heating System Rebate product, was implemented in December for the heating season, but the Company anticipates that the majority of those promotional savings will be realized in 2015.

Pool Pumps

The Pool Pumps product aimed to encourage customers to purchase qualifying energy-efficient variable speed swimming pool pumps (VSP) by providing customers a point-of-purchase incentive. In addition, an incentive was provided to the Company's approved trade partners when they installed and calibrated the VSP. The proper commissioning and calibration process takes into consideration the specific attributes for each pool and sets the pump to run at lower speeds, capturing additional energy savings. The selected bidder has been the third-party implementer since the product's onset, providing marketing and product delivery support to the Company.

Deviation from Target

In 2014, the product achieved only 8% of the electric savings target. Challenges include an inaccurate market assessment; a limited sales season, absence of high volume trade partners; high up-front equipment costs; and too few participants. All of these factors contributed to a consistently non-cost-effective product that generated lower-than-expected energy savings. Year-end expenditures were 37% of the budget, which were impacted by certain fixed administrative and marketing expenses. The significant reduction in product expenditures is due to lower than forecasted participation, resulting in fewer rebates and trade partner incentives.

Changes in 2014

Due to under performance in 2013, several changes were implemented for 2014. Rebate levels were increased from \$100 to \$200 per pump to provide a greater offset of the higher VSP purchase price. The rebate application requirements (completed by the trade partner) were reduced to address concerns expressed by some partners. The vendor worked to better identify and target customers with swimming pools and they implemented new promotional tactics such as a vendor sales contest, to drive increased sales and bring on new partners that had not previously participated. These changes did not substantively impact overall product achievements.

60/90-Day Notice(s)

Since its deployment in 2013, the product has experienced several challenges which led to significant under performance of this product. The Company submitted a 90-Day Notice on September 22, 2014 to discontinue the residential Pool Pumps product and complete all close-out activities by December 31, 2014.

Refrigerator Recycling

The Refrigerator Recycling product is designed to decrease the number of inefficient freezers and refrigerators in the Company's service territory in an environmentally safe and compliant manner and, by doing so, achieve electric energy savings and peak demand reduction. Customers receive an incentive, free pick up, and disposal of their operable,

inefficient freezers and refrigerators. This product is primarily marketed through bill onserts, direct mail, print, radio advertisements, and online/social media efforts.

Deviation from Target

The Refrigerator Recycling product met its electric savings targets in 2014. Expenditures were below budget. The success of the product is attributed to an effective marketing campaign throughout the year, which included multiple giveaways, increased rebates and consumer events. The secondary refrigerator removal component of the product continues to be the majority (58% of total) of units recycled.

School Education Kits

The School Education Kits product combines a set of classroom and in-home activities with projects that enable students and parents to install energy efficiency measures in their homes. The product is targeted to fifth and sixth grade students in the Company's electric and natural gas service territory. A third-party implementer fully administers the product, including recruiting and training teachers, providing all materials, and tracking participation and installation rates among the students. Net energy savings are based on the installation rates of the measures the students receive in the kits.

Deviation from Target

The product slightly exceeded the electric and natural gas savings targets in 2014, while remaining under budget. Cost efficiencies were achieved by contracting with a new third-party implementer starting in 2014. The success of the product can be attributed to continuous participation from teachers and follow-up communications to emphasize the importance of installing the provided measures.

Changes in 2014

The product added several water savings measures to the kits in 2014—a high efficiency showerhead and two low-flow faucet aerators (kitchen and bathroom). Additionally, the kits now include one LED bulb, as a result of the 2014 DSM Plan Settlement Agreement.

60-Day Notice

A 60-Day Notice was posted in September 2014 to update the baseline bulb to match the bulb assumptions used in the Home Lighting & Recycling product. The Notice also made changes to the incremental capital costs for the product.

Energy Efficient Showerhead

The Energy Efficient Showerhead product is designed to offer year-round natural gas and electric savings to Public Service customers. Residential natural gas and combination gas and electric customers are eligible to receive a free high-efficiency 1.5 gallon-per-minute (GPM) high-efficiency showerhead, 1.5 GPM kitchen aerator, and 1.0 GPM bathroom aerator to help reduce energy and water use costs.

Deviation from Target

The product exceeded electric and natural gas savings targets in 2014. The product design allows customers to identify their water heating fuel type, and, as a result, a higher than expected proportion of electric water heater led to the program delivering well on kWh savings. Additionally, the outreach to remind customers to install the measures contributed to increased installation rates driving up electric and natural gas savings overall.

Changes in 2014

The Company added kitchen and bath aerators to the product, and updated savings-per-unit assumptions based on recommendations from Michaels Engineering, beginning in May 2014 under the 2014 DSM Plan implementation.

Water Heater Rebate

The Water Heater Rebate product leverages incentives to encourage residential customers to purchase energy saving water heating equipment. Rebates are available for:

- Energy-efficient natural gas storage and tankless water heaters and;
- Electric-only heat pump water heaters.

As a result of the product, participating customers reduce their natural gas and electricity usage and long-term operating costs.

Deviation from Target

The product exceeded its natural gas and electricity targets in 2014. Expenditures—primarily customer rebates—were exceeded in line with energy savings. The product achievement is attributed to continued momentum in the marketplace, sustained product awareness, and effective communication tactics.

Changes in 2014

The Company discontinued rebates for 0.62 and 0.65 Energy Factor Standard Tank Water Heaters to reduce product costs and strive for greater cost-effectiveness.

Saver's Switch

Saver's Switch is an integral part of the Company's demand response efforts. The product offers bill credits as an incentive for residential customers with central air conditioners to allow the Company to control operation of their air conditioners for a select period of time 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 control periods for central air conditioners are declared an average of five to fifteen times per year. In 2014 only one control day was executed.

Deviation from Target

By the end of 2014, the product had more than 176,000 residential participants enrolled in Colorado since the product launched nearly 15 years ago. The Company did not meet its incremental, new participant target in 2014 of 12,000 new switches. Approximately 10,000 new switches were added, thus demand and energy savings achievements were below target. The Company estimates that more than 50% of eligible customers in Colorado are already enrolled in Saver's Switch. While this is a very high penetration rate, the product now has a much smaller group of customers who are eligible and willing to join the program in the future. As a result, customer signup and response to promotional activities has declined in recent years, despite significant marketing efforts. As the Company continues to grows Saver's Switch it aims to balance the increasing cost to attract and enroll new customers with the energy and demand savings benefits resulting from customer participation to manage cost-effectiveness.

Low-Income Program

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

Electric

In 2014, the electric products within the Company's Low-Income Program did not achieve their energy savings targets, due to shortfalls in Energy Savings Kit, Non-Profit Energy Efficiency and Single-Family Weatherization. However, Multi-Family Weatherization exceeded its anticipated performance on in electric energy savings due to higher than forecasted participation. While savings targets were missed, the Company did have electric DSM expenditures slightly above the budget due to a higher than expected proportion of more expensive electric measures, such as refrigerator replacement, being implemented.

A summary of the Company's Low-Income Program achievements for electric DSM products is shown in Table 15a below.

Table 15a: Low-Income Program – Electric DSM Products (Budget to Actual)

		Bu	dgets / Ta	argets		Acheivements					
Low-Income Program - 2014	Electric Participants	Electric Budget	Net Gen. kW	Net Gen. kWh	Electric MTRC Test Ratio		Electric Expenditures	Net Gen. kW	Net Gen. kWh	Electric MTRC Test Ratio	
Energy Savings Kit	15,000	\$332,475	174	1,932,191	3.33	5,428	\$197,244	111	1,182,969	3.49	
Multi-Family Weatherization	14	\$387,505	111	1,266,863	1.48	29	\$521,568	320	1,933,055	1.39	
Non-Profit Energy Efficiency	25	\$934,524	500	1,777,129	1.63	30	\$812,713	171	1,342,438	1.09	
Single-Family Weatherization	2,478	\$1,287,086	244	3,193,407	1.32	2,436	\$1,636,483	268	2,349,378	0.90	
Low-Income Program Total	17,517	\$2,941,590	1,029	8,169,590	1.65	-	\$3,168,007	869	6,807,840	1.16	

Natural Gas

In 2014, the natural gas products within the Company's low-income program fell short of their targets, with the exception of Multi-Family Weatherization product. The Company's natural gas Low-Income Program expenditures were on target; the Multi-Family Weatherization product did exceed its budget in proportion to its over-achievement in natural gas savings.

A summary of the Company's Low-Income Program achievements for natural gas DSM products is shown in Table 15b below.

Table 15b: Low-Income Program – Natural Gas DSM Products (Budget to Actual)

	Budgets / Targets							Achievements						
	Gas		Net Annual	Annual	Gas MTRC Test Net	Gas MTRC	Gas	Gas	Net Annual	Annual	Gas MTRC Test Net	Gas MTRC		
Low-Income Program - 2014	Participants	Gas Budget	Dth Savings	Dth/\$M	Benefits	Test Ratio	Participants	Expenditures	Dth Savings	Dth/\$M	Benefits	Test Ratio		
Energy Savings Kit	15,000	\$221,692	12,472	56,258	\$1,692,004	6.93	7,786	\$92,284	8,721	94,506	\$1,524,656	12.82		
Multi-Family Weatherization	12	\$376,747	6,788	18,017	\$448	1.00	14	\$617,666	10,716	17,349	-\$324,243	0.80		
Non-Profit Energy Efficiency	25	\$541,404	6,970	12,875	\$354	1.00	25	\$510,316	3,700	7,249	-\$251,332	0.75		
Single-Family Weatherization	2,478	\$2,167,578	60,042	27,700	\$2,925,771	1.74	1,865	\$2,103,202	51,748	24,604	\$2,334,042	1.57		
Low-Income Program Total	17,515	\$3,307,421	86,272	26,084	\$4,618,578	1.79	-	\$3,323,468	74,884	22,532	\$3,283,124	1.48		

Low-Income Products

The following provides a brief summary of the performance of each low-income product in 2014.

Energy Savings Kits

The Energy Savings Kit product provides income-qualifying customers with a bundle of home energy efficiency measures and education materials. Customers prove income eligibility by applying for Federal Low-Income Housing Energy Assistance Program funding or other forms of energy assistance, such as those provided by Energy Outreach Colorado. In 2014, the kits included the following measures:

- 1.0 GPM faucet aerator
- 1.5 GPM faucet aerator
- 1.5 GPM showerhead
- Eight compact fluorescent light (CFL) bulbs

Deviation from Target

The product did not meet its electric or natural gas savings targets for 2014. The Company continues to face a declining pool of income-eligible customers to participate in the product. Multiple offers were sent during the year in an attempt to meet the participation target. Installation rates continued to be a focus and did increase in 2014 over previous years. The product was under budgets, for both electric and gas, for the year.

60-Day Notice

A 60-Day Notice was posted in September 2014 to update the baseline bulb to match the bulb assumptions used in the Home Lighting & Recycling product.

Multi-Family Weatherization

The Multi-Family Weatherization product provides funding for a wide variety of natural gas and electric equipment and process improvements for low-income multi-family buildings. These buildings have common areas, and greater square footage, more appliances, and more potential measures than single-family homes.

The Company's rebates supplement Federal weatherization grants to produce incremental, cost-effective gas and electric savings. Each submitted project participates in a custom analysis by the Company's energy efficiency engineers to determine cost-effectiveness.

Deviation from Target

The product's implementer, Energy Outreach Colorado (EOC), completed 31 low-income multi-family projects containing electric measures and 14 projects containing natural gas measures in 2014. The product exceeded electric and natural gas savings targets, resulting in expenditures being over budget at a level consistent with the additional rebate expenditures. EOC partnered with Mile High Youth Corps and local contractors to install thousands of energy-efficient lamps and low-water-flow fixtures in several multifamily facilities, contributing to both electricity and natural gas product savings.

Non-Profit Energy Efficiency

The Non-Profit Energy Efficiency product provides funding for a wide variety of natural gas and electric equipment and process improvements for qualified non-profit organizations within the Company's service territory. The product's focus is helping organizations that serve low-income individuals, such as shelters, safe houses, and residential treatment centers.

The Company worked with third-party implementer, Energy Outreach Colorado (EOC), to supplement Federal weatherization grants to produce incremental, cost-effective gas and electric savings for qualified non-profit facilities. Each project submitted in 2014 went through a custom analysis by the Company's energy efficiency engineers to determine cost-effectiveness.

Deviation from Target

EOC completed 33 low-income non-profit projects containing electric measures and 26 projects containing natural gas measures in 2014. The product fell short of electric and natural gas savings targets due to lower average savings per facility than had been forecasted. EOC partnered with local contractors to retrofit and upgrade equipment and processes for several national non-profit organizations with a Colorado presence, contributing to the product's 2014 energy savings.

Single-Family Weatherization

The Single-Family Weatherization product offers natural gas and electric efficiency measures to low-income single-family households. Depending on the needs of the home, eligible customers will receive the cost-effective improvements that are recommended. In addition to these measures, a major focus of the product is customer education on ways to reduce energy use in the home and to make smart energy choices.

The product is implemented in partnership with Energy Outreach Colorado, the Colorado Energy Office and the various weatherization agencies across the state. The Company funds

supplement Federal weatherization grants to produce incremental, cost-effective gas and electric savings.

Deviation from Target

This product fell short of meeting the gas and electric savings target in 2014 as leveraging funds continue to decrease at the federal and state level. To augment this loss of funding, EOC successfully collaborated with local and non-profit organizations to increase outreach and customers awareness.

60-Day Notice(s)

One modification was implemented in 2014 to add showerheads and low-flow kitchen and bathroom sink aerators to the product offering.

Indirect Program

The Indirect Program includes products and services that support the overall development and implementation of the DSM Plan. Most of these products and services do not directly produce energy or demand savings and are not independently evaluated for cost-effectiveness. However, DSM pilots that are being evaluated to become direct impact products and have measured savings do go through a cost-effectiveness evaluation. The costs of the entire indirect program are included in the overall portfolio cost-effectiveness evaluation. The Indirect Program has two core elements: Education / Market Transformation and Planning and Research.

Within Education / Market Transformation, the Company offered six customer-facing products in 2014, including: Business Energy Analysis, Community Energy Efficiency Planning, Consumer Education – Business, Consumer Education – Residential, Energy Efficiency Financing, and Residential Home Energy Audit. These products did not deliver measured savings in 2014 and, therefore, were not evaluated for cost-effectiveness. However, these services do encourage participation in other direct impact DSM products.

Within Planning and Research, the Company continued five internal services: DSM Planning and Administration, Program Evaluations, Measurement and Verification (M&V), DSM Market Research, and DSM Product Development. In 2014, the Company operated four DSM pilots: the Energy Feedback Pilot, Energy Feedback Pilot – Business, In-Home Smart Device Pilot, and EV Charging Station Pilot. Two additional pilots were launched via 60-Day Notice in late 2014: the Multifamily Buildings Pilot and the Smart Thermostat Pilot.

Electric

A summary of the Company's indirect program achievements for electric DSM products and services is shown in Table 16a below.

²¹ In 2014, only the Energy Feedback Pilot and Energy Feedback Pilot – Business delivered verified energy savings within the Indirect Program.

Table 16a: Indirect Program – Electric DSM Products (Budget to Actual)

		Bud	gets / Tar	gets		Achievements						
Indirect Products & Services - 2014	Electric Participants	Electric Budget	Net Gen. kW	Net Gen. kWh	Electric MTRC Test Ratio	Electric Participants	Electric Expenditures	Net Gen. kW	Net Gen. kWh	Electric MTRC Test Ratio		
Education/Market Transformation												
Business Energy Analysis	400	\$980,880				147	\$488,812					
Community Energy Efficiency Planning Pilot		\$25,800				0	\$93,192					
Consumer Education - Business	1,385	\$153,765				1,516	\$138,727					
Consumer Education - Residential	34,000	\$1,232,674				40,038	\$1,109,571					
Energy Efficiency Financing	1,500	\$60,000				89	\$43,134					
Residential Home Energy Audit		\$610,664				2,341	\$506,326					
Education/Market Transformation Total	37,285	\$3,063,783				-	\$2,379,761					
Planning and Research												
DSM Planning & Administration		\$401,877					\$508,913					
Program Evaluations		\$247,080					\$115,185					
Measurement & Verification		\$13,175					\$5,651					
DSM Market Research		\$290,688					\$227,849					
DSM Product Development		\$1,197,238					\$557,619					
Energy Feedback Pilot	117,642	\$760,817	7,610	28,994,680	3.00	99,301	\$780,403	7,200	27,807,492	2.69		
Energy Feedback Pilot - Business	11,422	\$255,754	579	5,484,685	1.18	10,486	\$134,292	0	1,857,475			
In-Home Smart Device Pilot		\$50,698					\$49,756					
Electric Vehicle Charging Station Pilot		\$4,220					\$15,081					
Multifamily Building							\$2,729					
Smart Thermostat							\$15,283					
Smart Thermostat - DR							-\$8					
DSM Product Development Total	129,064	\$2,268,727	8,189	34,479,365	1.14	-	\$1,555,155	7,200	29,664,967	1.40		
Planning and Research Total	129,064	\$3,221,547	8,189	34,479,365	0.80		\$2,412,753	7,200	29,664,967	0.90		
Indirect Products & Services Total	166,349	\$6,285,330	8,189	34,479,365	0.45	_	\$4,792,515	7,200	29,664,967	0.50		

Natural Gas

A summary of the Company's indirect program achievements for natural gas DSM products and services is shown in Table 16b below.

Table 16b: Indirect Program – Natural Gas DSM Products (Budget to Actual)

	Budgets/Targets							Achievements						
Indirect Products & Services - 2014	Gas Participants	Gas Budget	Net Annual Dth Savings	Annual Dth/\$M	Gas MTRC Test Net Benefits	Gas MTRC Test Ratio	Gas Participants	Gas Expenditures	Net Annual Dth Savings	Annual Dth/\$M	Gas MTRC Test Net Benefits	Gas MTRC Test Ratio		
Education/Market Transformation														
Business Energy Analysis	100	\$138,316					117	\$34,948						
Community Energy Efficiency Planning Pilot		\$4,200						\$15,816						
Consumer Education - Business	593	\$50,002					2,333	\$48,034						
Consumer Education - Residential	34,000	\$250,557					40,037	\$196,847						
Energy Efficiency Financing	750	\$60,000					89	\$29,938						
Residential Home Energy Audit		\$520,099					2,634	\$486,897						
Education/Market Transformation Total	35,443	\$1,023,174					-	\$812,481						
Planning and Research														
DSM Planning & Administration		\$110,004						\$127,160						
Program Evaluations		\$204,580						\$106,163						
Measurement & Verification		\$3,188						\$1,397						
DSM Market Research		\$164,143						\$158,460						
DSM Product Development		\$203,979						\$182,552						
Energy Feedback Pilot	118,574	\$235,016	141,333	601,374	\$462,845	2.97	99,301	\$195,336	91,789	469,905	\$289,393	2.48		
Energy Feedback Pilot - Business	11,422	\$80,765	23,408	289,828	\$34,658	1.43	6,942	\$46,697						
In-Home Smart Device Pilot														
Electric Vehicle Charging Station Pilot														
Multifamily Building								\$1,340						
Smart Thermostat								\$4,314						
Smart Thermostat - DR														
DSM Product Development Total	129,996	\$519,760	164,741	316,955	\$293,524	1.56	-	\$247,687	91,789	370,586	\$289,393	1.13		
Planning and Research Total	129,996	\$1,001,675	164,741	164,465	-\$188,391	0.81	-	\$823,418	91,789	111,473	-\$338,690	0.59		
Indirect Products & Services Total	165,439	\$2,024,849	164,741	81,359	-\$898,965	0.54	_	\$1,635,899	91,789	56,109	-\$872,446	0.47		

The Indirect Program budget consists primarily of labor, educational materials, and study costs. Most studies are conducted by outside experts, generally selected through a competitive bid.

Education / Market Transformation Products

The following provides a brief summary of the performance of each education / market transformation product in 2014.

Business Energy Analysis

Business Energy Analysis is an indirect impact product that offers analysis services to identify energy saving opportunities for Colorado business customers. The product includes three different types of assessments: (1) online assessments, (2) onsite audits, and (3) engineering assistance studies. The reports in all three assessments provide detailed information about cost and paybacks, which will assist in creating a business case for the customer to make energy efficiency upgrades.

Deviation from Target

While the program did not meet its target of 400 electric participants, the program had a successful 2014, realizing a nearly 100% increase in participation from 2013. More importantly, the program identified nearly 9.5 GWh and over 10,000 Dth of energy conservation opportunities (ECOs). Expenditures were in line with participation levels, and yet much lower than budgeted.

Community Energy Efficiency Planning Pilot

The Community Energy Efficiency Planning (CEEP) Pilot is an indirect pilot designed to deliver a planning and implementation framework to engage communities around participation in the Company's DSM products. The pilot included support for development and implementation of energy efficiency plans for four different communities and was delivered through a third-party implementer.

The main objective of the pilot was to determine if by providing strategic support in the development and implementation of an energy plan at a community level, the Company could successfully drive increased energy efficiency activities within that community. The Company found that the community energy efficiency planning process was an effective way to engage communities, provide them with relevant data about their energy usage, and increase awareness of the Company's DSM program offerings.

The pilot concluded at the end of 2014. Recommendations from the pilot, which have helped inform the Company's ongoing efforts with communities through the Partners In Energy initiative, include:

- Provide both planning and implementation support.
- Obtain an increased commitment level from communities.
- Provide additional incentives/levels of support within a tiered program structure
- Invite all communities, but make the offering limited.
- Create peer networking and collaboration opportunities.
- Evolve the process documents based on participant feedback.
- Consider evaluating a community's resources up front.
- Consider holding regular meetings with stakeholders during the implementation phase.
- Establish a method for continuous, ongoing measurement of community goals.

Analysis of the pilot results indicate that it is difficult to directly attribute program lift to this indirect effort unless the communities' implementation plan includes efforts targeted toward specific DSM programs offered by Xcel Energy.

Deviation from Goal

The City of Aurora began CEEP activities in Q1-2014, and due to the complexity of the planning process for this large community no project implementation was completed in 2014.

Expenditures for 2014 were significantly over budget, for both electric and natural gas. The Company was well aware of the forecasted excess expenditures and proactively assessed that there would be value in the additional spending to support the City of Aurora in its late start to the planning process and to provide all four communities with project implementation support for six months beyond the timeframe that CEEP Pilot activities were anticipated.

Consumer Education – Business

The Consumer Education – Business program is intended to create awareness of energy conservation by providing business customers with information and resources to reduce their business' energy use. Xcel Energy provides customers with opportunities to actively engage in energy efficiency through offering program information at tradeshows and other outreach events, customer feedback surveys, and social media channels such as Facebook and Twitter. The Company also uses traditional outreach channels like seasonal print and bill inserts as an integral part of the overall education and outreach strategy.

Deviation from Goal or Budget

The Company exceeded the electric and gas participation targets for this program while staying within the approved budgets. Continued long-term partnerships with community-based organizations contributed to increased participation without additional expenditures. Community partners continued to offer additional outreach opportunities as a result of mutually beneficial, longstanding relationships. The Company has worked to achieve better web reporting and analytics, newsletter readership, and social media reporting, which have also supported increased participation.

Consumer Education

The Consumer Education program creates awareness of energy conservation by providing residential customers with information and resources to reduce their homes' energy use. The Company provides customers with opportunities to actively engage in energy efficiency through offering product registration at community outreach events, customer feedback surveys, and social media channels such as Facebook and Twitter. The Company also uses traditional outreach channels like seasonal print and bill inserts as an integral part of the overall education and outreach strategy.

Deviation from Target

The Company exceeded the electric and gas participation targets for this product while staying within the approved budgets. While the product followed tactics outlined in the Plan, factors that contributed to increased participation without additional spend include: value-added outreach from continued long-term partnerships with community-based organizations, and increased tracking and reporting from those partnerships. Community-based partners continued to offer additional outreach opportunities at no charge as a result of mutually beneficial, longstanding relationships. The Company has also worked with our community relations and internal partners to provide better website reporting and analytics, newsletter readership and social media reporting. This has resulted in increased participation.

Changes in 2014

As a result of a third-party product evaluation completed in 2014, the product will expand efforts through current digital channels to increase customer engagement.

Energy Efficiency Financing

Energy Efficiency Financing is an indirect impact product with no directly attributable energy or demand savings. Instead, the initiative seeks to connect residential and business customers with third-party lending institutions to encourage use of financing, where needed, for implementation of DSM projects. The Company has established formal alliances with several financial institutions and local programs that provide customers with easy access to the funds they need to be able to improve energy performance. All loans are made directly from third-party lenders—"Allies"—to customers.

Deviation from Target

Though this product does not have energy or demand savings, there were participation goals of issuing 2,100 residential loans and 150 business loans in 2014. The product did not meet these goals. After receiving a product evaluation—completed near the end of 2014—it was suggested that future participation goals be set based on historical program achievement, as research has shown participation in financing programs to ramp up slowly following the first few years of the offering.

Residential Home Energy Audit

The Residential Home Energy Audit product provides rebates to the Company's natural gas and/or electric customers that receive an in-home energy audit. Considered a gateway to other residential products, Home Energy Audit is designed to encourage customers to understand their home's energy usage which can lead to improvements in energy savings in residential homes. An Energy Advising component has been incorporated as a value-added service to customers who are unsure of which next steps to take to achieve their energy goals. There are three types of in-home audit rebates offered through this product that earn the customer a rebate: standard audit; standard audit with blower door test; or infrared audit which includes the standard and the blower door test.

Throughout the year, the Company promoted the Home Energy Audit product through various marketing efforts such as My Energy newsletters, blogs, and bill onserts, as well as through cross-promotion with the Energy Efficiency Financing product.

Deviation from Target

The product exceeded its participation targets for both electric and natural gas customers, while remaining under budget.

Changes in 2014

The Company has also worked with its software provider to enhance the audit tool's usability for the contractor community with enhancements such as multiple attic insulation levels, HVAC systems and compatibility with mobile phones or tablets. Energy Efficiency Financing was incorporated into the tool in 2014, which enables an energy auditor to show financing loans available, and change variables such as loan term and percentage dynamically. Additionally, as suggested in the 2013 Home Performance with ENERGY STAR

comprehensive evaluation, an energy advising component was implemented for the 2014 year and has driven additional electric and gas savings in multiple products across the residential portfolio.

Planning & Research Products

The following provides a brief summary of the performance of each planning and research product in 2014.

DSM Planning & Administration

DSM Planning & Administration is an indirect product with internal staff that manages all energy efficiency-related filings, including the annual DSM Status Report, DSM Plans and Notices, and Strategic Issues proceedings. This group performs cost-benefit analyses of all the energy efficiency and demand response products, provides tracking of the energy and demand savings, and collaborates with the Company's Resource Planning group to develop inputs for the resource plans. DSM Planning & Administration conducts all planning and implementation of the quarterly DSM Roundtable Meetings and associated filings; and provides management oversight of all evaluation, measurement and verification planning and policies. These staff work with outside consultants and stakeholders as needed throughout the year. These functions are necessary to ensure a cohesive and high quality DSM portfolio that meets all legal requirements as well as the expectations of our internal and external customers and the Colorado PUC.

Deviation from Target

In 2014, the Company overspent the electric budget for DSM Planning & Administration due to a larger workload than anticipated, including preparations for pre- and post-hearing support for DSM Strategic Issues, issuance of fourteen 60-Day Notices for product modifications and one 90-Day Notice, and development of the 2015/16 DSM Plan.

Program Evaluations

The Company procures third-party comprehensive evaluations, including impact and/or process evaluations, of products in the DSM portfolio. The evaluations identify product strengths as well as opportunities for improvement; and enable comparison with industry best practices. In 2014, three evaluations were conducted for Energy Management Systems, Multi-Family Weatherization, and Energy Efficiency Financing.

All three evaluations were process only. High-level outcomes from these evaluations include:

• Energy Management Systems (Business): EMS is operating effectively and is well positioned to promote implementation. The product successfully engages trade allies that play integral roles in customer recruitment and project implementation. Segregated trade markets limit integration of lighting and HVAC controls, suggesting an opportunity to initiate new trade partner solutions. The evaluation supported the

- Company's plan to add an EMIS offering to address growing demand for informational systems.
- Multi-Family Weatherization (Low-Income): The product encourages participants to take
 efficiency actions. The partnership with Energy Outreach Colorado is effective,
 allowing participating customers and trade allies to easily engage in the program.
 The Company may investigate split incentives affecting the rural and mountain areas
 to expand market opportunities. The Company will continue to enhance
 communications with EOC and trade allies explaining roles, rules and protocols,
 project benefits, and decision making.
- Energy Efficiency Financing (Indirect): Satisfaction among customers using the program is high. Staff has effectively recruited allies, provided training, and designed a strong marketing toolkit to target residential and business customers. Participation is ramping up slowly. The Company will consider ways to increase contact and relationships between lenders and trade allies and consider combining efficiency with solar incentives as a whole package of improvements. Adjusted goals are recommended to account for slow ramping up of financing programs.

Deviation from Target

Expenditures were under budget, achieved by renegotiating third-party contracts.

Changes in 2014

The impact portion of the Energy Efficiency Financing evaluation, initially scheduled for 2015, was pushed back to 2016 to allow for the program to have more time to mature.

Measurement and Verification

The Measurement and Verification (M&V) Plan for the Company's DSM portfolio was developed to measure and verify all direct electric and natural gas DSM savings on an ongoing basis during 2014 to ensure that technical assumptions, net-to-gross (NTG) ratios, and realization rates used in our savings calculations are as accurate as possible. The intensity of the M&V is balanced with the costs of the M&V approaches, being mindful of the objectives of ensuring accurate savings while keeping expenditures prudent and maintaining the cost-effectiveness of the products. Product 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 M&V activities also provide opportunities to evaluate customer satisfaction and identify strategies for improving product delivery and effectiveness. Results of M&V activities are reported in the section of this Report labeled "Evaluation, Measurement, and Verification Results."

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²² In the 2014 calendar year, technical assumptions are applied to energy savings based on which Plan-year they were achieved in. The 2013 DSM Plan remained in effect from January 1, 2014 through April 30, 2014. The 2014 DSM Plan took effect on May 1, 2014.

The expenditures associated with this line item include only the internal labor to manage the overall M&V process. M&V expenses from third-party evaluators are charged directly against each product budget.

DSM Market Research

The Company conducts surveys and studies to gauge energy awareness and interest around DSM. Internal market research functions are needed to provide overall support for clarifying DSM issues and thoroughly understanding current and potential DSM customers. In 2014, the Company conducted the following general research and analytical services:

- Home Energy Audit Tracking
- Review of Measurement & Verification (M&V) Data for Prescriptive Products
- Residential and Business Advertising Tracking
- Contracting support for Portfolio-Wide Technical Assumptions Review
- Residential Attitude, Awareness and Usage (AAU) Study (initiated in late 2013)
- Business Attitude, Awareness and Usage (AAU) Study (initiated in late 2014)
- Dun & Bradstreet Business list refresh for Salesforce market segmentation
- E Source Consultative Services
- CEE Consultative Services
- Home Use Study

Market research is used internally by the Company as a resource for planning marketing activities and initiating efforts to reduce the number of non-participants.

Deviation from Target

Electric expenditures were under budget due to postponement of some projects and savings from successful third-party contract negotiations. Natural gas expenditures were on budget.

DSM Product Development

The product development process starts with ideas and concepts from customers, regulators, energy professionals, interest groups, and Company staff. The Company's DSM Product Development team identifies, assesses, and develops new energy efficiency and load management products, services, and measures for the Company. This work enables the Company to identify and promote promising new DSM products, measures, and other opportunities for its customers.

In 2014, the Company developed 13 new DSM products or measures that were introduced via 60-Day Notices and/or included in the 2015/16 DSM Plan (filed in October 2014). In addition, a new product path was introduced, called PD Express, which gives internal staff the tools to manage the development of simple new measures in a streamlined manner. The Company also evaluated technologies and product designs that were not recommended to proceed through the full product development process. A summary of these activities in 2014 follows:

Full Product Development Process

- 1. Midstream Business Lighting
- 2. Home Energy Squad
- 3. Energy Management Information Systems
- 4. Western Cooling Control Device
- 5. Process Efficiency for Medium-Sized Businesses
- 6. LED Area Lighting
- 7. Direct Install for Small Business Lighting
- 8. Smart Thermostat Pilot
- 9. Multifamily Buildings Pilot
- 10. LED Troffers
- 11. Energy Feedback Expansion
- 12. Company-owned LED Street Lights

PD Express Process

- 1. Upstream Cooling for Rooftop Units
- 2. VSD Air Compressor HP Reduction
- 3. EC Plug Fans
- 4. Integrated Lighting Controls

Evaluated and Not Pursued

- 1. Residential Custom Efficiency
- 2. Convenience Store Efficiency
- 3. Energy Recovery Ventilator (ERV)
- 4. Whole House Efficiency
- 5. Ground Source Heat Pumps

Deviation from Target

DSM Product Development expenditures were under budget in 2014 due to lower than anticipated costs for research, consulting services, and association dues.

Energy Feedback Pilot

The Energy Feedback Pilot focused on testing options for energy-use feedback with residential customers to better understand what behavior-based energy conservation impacts can be achieved by providing feedback on energy use. The pilot tested various forms, frequencies, and contents of feedback including paper reports mailed periodically and emailed reports sent monthly to better understand which works better and why. During 2014, pilot participants experienced an average monthly electricity usage reduction of 1.8% and natural gas usage reduction of 0.8%.

A refill group of approximately 9,400 participants was added in August 2014. This was to offset the natural attrition in the pilot over the past two years. This group ramped up to monthly electric savings of just over 1.0% by December 2014. Natural gas savings were measured at 0.5% for this group in December 2014.

The expansion group that had been added in January 2013 continued its ramp up in energy savings, reaching an average of 2.0% in monthly electric savings and 0.6% in monthly natural gas savings, after two years of report delivery.

The pilot results continue to be in line with norms across the third-party implementer's utility customer base. These results led the Company to recommend transitioning the residential pilot to a product starting in 2015.

Deviation from Target

The pilot's electricity energy savings achievement was slightly below target at 96%, and the natural gas savings achievement was significantly below target at 65%. The deviation was due to a lower achievement than had been forecasted for the 2013 expansion group.

Natural gas expenditures were under budget due to lower than forecasted achievement.

Energy Feedback Pilot - Business

The Energy Feedback Pilot – Business delivers Business Energy Reports to approximately 10,000 small business customers in Xcel Energy's Colorado service territory. The pilot is measuring the effectiveness of various feedback methods on small business customer (non-managed customers with up to 250 kW of demand) energy usage by providing these customers with different forms of feedback regarding their energy consumption.

The feedback communication strategies are intended to result in a decrease in energy use by inducing changes in the behavior of the end-user and an increased or earlier adoption of energy-efficient technologies and energy-efficient practices that remain even after the feedback stimulus is removed.

The pilot launched in July 2014. Four sets of Business Energy Reports were delivered between July and December.

Deviation from Target

The pilot launched later in the year than anticipated due to delayed launch of the 2014 DSM Plan. The ramp up time required for feedback programs to demonstrate energy savings also led to the pilot measuring below the forecasted annual electricity energy savings. There was no measurement of natural gas savings because there was too much variation in the treatment vs. control analysis to yield a reliable savings measurement. The Company anticipates being able to better evaluate natural gas savings impacts, along with ongoing electricity savings, after more data is available for analysis in 2015.

In-Home Smart Device Pilot

The In-Home Smart Device Pilot was designed to test how residential customers respond to various demand control strategies and energy consumption information delivered to their

homes through in-home energy management devices. Participants were expected to lower their energy consumption when provided with the tools to monitor and track their energy usage. The following devices were installed in the home of each participant:

- EnergyHub Home Base, a smart controller with in home display;
- Honeywell Wireless Thermostat, controllable by the Company;
- Two Sockets (15 amp smart plugs), controllable by the Company; and
- Wireless CT Sensor, which sends whole home electricity use to Home Base.

The pilot concluded at the end of September 2013, after two summers of demand response events and a year and a half of tracking energy savings results. The pilot evaluation was completed in Q1-2014 and posted to the xcelenergy.com website, here: http://www.xcelenergy.com/staticfiles/xe/Regulatory/Regulatory%20PDFs/CO-DSM/CO-2014-IHSD-Pilot-Evaluation.pdf.

The evaluation found:

- Statistically-significant demand savings across the summer of 2012 and 2013. During high temperature events (>94 degrees) the pilot saved 0.52 0.71 kW/device. When selecting only the subset of in-home devices that participated in each demand response event (participants had the option to opt-out), savings per participant ranged from 0.99 1.29 kW.
- Statistically-significant electricity savings of 3% of customers' annual use, on average.

Deviation from Target

The 2014 pilot budget of \$50,698 was nearly fully expended to complete the evaluation work, wrapping up the pilot at 2% under budget.

Electric Vehicle Charging Station Pilot

The Electric Vehicle (EV) Charging Station Pilot is intended to provide insights into customer electric vehicle charging patterns and behaviors, how electric vehicle charging load coincides with the Company's system peak and how these vehicles may impact the distribution system. The pilot will determine when customers are charging, the typical duration of the charge, and frequency by which the charging load is available for demand response, and customer's acceptance of charge interruption.

In 2014, the pilot continued its test of two vendor approaches: 1) a complete Level 2 (240V) charger with demand response (DR) control capability, and 2) a DR controller that was installed on a customer's existing Level 2 charger. The charging device at each customer site was controlled 9-10 times during the summer control season. As in 2013, the customer was given a credit of \$100 and access to the associated data related to the vehicle charging.

Eighteen of the original 20 installed systems were controlled during 2014. One participant moved and did not move their equipment to the new home, and another participant opted out in 2014.

The pilot concluded at the end of 2014, and the data is being analyzed as part of a final evaluation. A pilot participant survey and general EV owners survey were completed in December 2014. The results of these surveys will be presented in the final evaluation report. Key learnings from the report include:

- Both vendor approaches were successful in controlling EV charging
- Peak charging loads generally occur during off-peak periods
- Control periods had minimal impact on customers
- There are lower charging peak loads in the summer than in the winter
- Customers expressed interest in off-peak EV rates
- EV owners also expressed interest in charging their vehicle with renewable energy

Deviation from Goal

This pilot exceeded its 2014 budget due to higher than expected Company labor for project management and analysis of pilot results.

Multifamily Building Pilot

The Multifamily Building Pilot is designed to introduce multifamily building equipment owners to Xcel Energy's DSM products and deploy DSM measures that will lower customers' energy consumption. The pilot objective is to test delivery of energy efficiency resources to the residential multifamily housing market via an energy assessment, directinstall of energy savings measures, and custom projects.

Deviation from Target

There are no participation or energy savings to report in 2014 as the pilot had not yet launched in the marketplace, which also resulted in the pilot being under budget. The delay was due to longer than expected timing to complete the operational, contracting and marketing activities needed to launch the pilot.

Smart Thermostat Pilot

The Smart Thermostat Pilot is designed to provide customers with rebates to purchase and install qualifying Wi-Fi connected "smart" thermostats. The pilot objective is to study the energy efficiency benefits, as well as test demand response benefits, associated with those devices.

Deviation from Target

There are no energy savings reported because, as noted in the 60-Day Notice launching the pilot in August 2014, the Company will report findings and energy savings in the 2016 DSM Annual Status Report. The pilot was under budget in 2014 due to longer than expected timing to complete the operational, contracting and marketing activities needed to launch the pilot.

Interruptible Service Option Credit (ISOC) and Third-Party Demand Response

In 2014, the Company continued to operate its Interruptible Service Option Credit (ISOC) program and Third-Party Demand Response Program to deliver controllable load through demand response.

Interruptible Service Option Credit (ISOC)

The Interruptible Service Option Credit (ISOC) program offers savings opportunities for the Company's Colorado business customers who can reduce their electric demand when notified. In return for participating, customers receive a monthly credit based on the program options they signed up for. The program is a tariff rate approved by the Colorado Public Utilities Commission. Participating customers must have a Contract Interruptible Load (CIL) of 300 kW or more.

Deviation from Target

The customer credits budget for 2014 was \$28,685,643, with actual credits paid slightly less at \$28,224,182. The budget for program administration was \$490,856 and the actual administration expenses were also slightly under budget at \$477,239. The program grew to a cumulative demand reduction of 248.5 net generator kW thru the addition of three new participants.

Third-Party Demand Response

The Third-Party Demand Response (Peak Savings Program), managed by EnerNOC, was developed as a result of PUC Decision No. C08-0369 under Proceeding No. 07A-469E. The program was designed to price capacity at below the levelized avoided cost of a combustion turbine at the time the program started. This means that on a capacity basis, the program should always yield positive net benefits. The EnerNOC contract runs through 2016 and has a 40 MW demand reduction minimum and 44 MW "full participation" maximum (customer kW).

Program participants range in size from 50 kW to 1 MW. EnerNOC seeks a diverse portfolio in order to meet the minimum 40 MW year round demand response commitment required under the contract. The interruptible load available through the program appears as one large resource to Public Service's System Operators. Public Service can choose to interrupt when it believes such action will lower overall system costs (an economic interruption), when there is a shortage of resources (a capacity interruption), or when there is an unexpected loss of Operating Reserves due to an outage (a contingency interruption).

Deviation from Target

EnerNOC is contractually responsible for providing a minimum of 40 MW and maximum of 44 MW (customer kW) of interruptible load each month. EnerNOC did not maintain the minimum contractual load for 2014, nominating an average of 32 MW (customer kW) or 35 MW based on generator kW, of interruptible load. Based on feedback from EnerNOC, this

was largely due to the loss of several customers who were influenced by the new EPA backup generator emission rules²³ including permitting, record keeping requirements, and limitations on annual hours of operations for demand response.

The program budget in 2014 was \$3,008,400. Due to the reduced nominated interruptible load as mentioned above, the final spend was \$1,843,963 in 2014.

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²³ National Emission Standard for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (RICE), http://www.epa.gov/ttn/atw/icengines/

Evaluation, Measurement, and Verification: 2014 Results

Background

Evaluation, measurement, and verification (EM&V) 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. Electric and natural gas savings are evaluated, measured, and verified during and after each performance year, in order to confirm savings calculations and ensure accurate application of technical assumptions. The robustness of EM&V must be balanced against the cost of performing EM&V, keeping in mind the objectives of ensuring accurate savings calculations while keeping expenditures prudent and maintaining the cost-effectiveness of programs.

Description of Process

Public Service uses a variety of providers to conduct its EM&V activities. In 2014, measurement and verification for the majority of direct-impact prescriptive products was conducted by a verification contractor (Nexant). For other products, such as ENERGY STAR® New Homes, Home Performance with ENERGY STAR, and New Construction, the third-party product implementer verified all of the installations to ensure that reported gross savings were accurate. Custom projects were verified through internal engineering reviews, as described below.

The Company's EM&V approach includes both performance year and post-performance year activities. Performance year activities are conducted on an ongoing basis during the reporting year and include rebate application validation and ongoing M&V. Post-performance year activities occur in the year following the reporting year and include all comprehensive product (process and impact) evaluations. Each of these EM&V activities is described in more detail below.

Performance Year EM&V Activities

- Rebate Application Validation takes place on a daily basis during the program year and involves auditing all rebate applications received by the Company. The Company's Rebate Operations Department has a two-step process (described in the EM&V section of the 2014 DSM 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 M&V is conducted with the primary objective of ensuring 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. Ongoing M&V of savings differs for prescriptive, custom, load management, and pilot products. For direct impact prescriptive products, Public Service contracts with third-party verification contractors and product implementers to perform M&V. Custom projects are verified through either engineering reviews of savings or through pre- and post-metering, depending on the size of the savings. The following describes the general M&V methods that have been used for prescriptive, custom, load management, and pilot products:

- O For prescriptive products, the verification activities follow a Deemed Savings approach, where the primary goal is to conduct field inspections for a sample of projects to determine that the measures are properly installed and have the potential to generate savings. The contractor selects a statistically valid number of projects to verify through field inspections or phone surveys. The sample size is designed to achieve accuracy levels of between 10% and 20% given a confidence level of 90% around the "realization rate" and is weighted to select larger projects. Inspection parameters gathered onsite will vary based on the product and sector, but will generally confirm that the installed equipment matches equipment listed on rebate application. If they don't match, the product's reported savings are adjusted using the realization rate which reflects the actual results of these inspections.
- o For custom products, the M&V process depends on the size and scope of the project. Each project is typically pre-approved through an engineering analysis performed by one of the Company's internal energy efficiency engineers. Within the initial engineering analysis, the expected project savings and payback are calculated using technical assumptions that fit the specific measure(s) being implemented. Depending on the size of the project, these calculations are then reviewed by a second internal energy efficiency engineer and/or manager and a random sampling is sent for third-party review. After installation of the efficiency measure, an internal engineer reviews the efficiency measure invoices to determine if the project savings remained within ± 10% of its original scope. If the project did not remain within scope, then the project is re-analyzed. For projects with savings greater than or equal to 1 GWh and/or 20,000 Dth, pre- and post-installation metering is performed for a minimum of two weeks to measure and verify savings. For all metered projects, the analysis of the metering data is conducted by one of the Company's internal energy efficiency engineers, and then reviewed by a team of internal engineers and a manager. For all custom projects, installation and realization rates of 100% are applied.
- o For load management products (Saver's Switch), 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.
- O For direct impact pilot products, the M&V treatment depends on the measures or services being tested. Often, additional testing beyond that performed for prescriptive or custom products is required. Typically, a control group is established and then a third-party contractor compares the results from the test group to those in the control group.

Post-Performance Year EM&V Activities

• Comprehensive Product Process and Impact Evaluations are conducted periodically for individual products to assess their overall effectiveness and to determine what improvements or other changes should be implemented in the future. The objectives of the process evaluation include: determining customer satisfaction with the product; identifying the populations that participate in the product and target markets that are potentially receptive, but do not currently participate in the product; identifying areas where the product, processes, or marketing could be improved; quantifying the product's market saturation levels; suggesting appropriate rebate design. The objectives

of the impact evaluation include estimating net product impacts, including determining attribution factors, such as free-ridership and spillover. These evaluations do not verify the savings of a specific performance year and are <u>not</u> applied retroactively to performance year activities. Comprehensive evaluations are not conducted on every product each year, but instead are staggered over several years in order to comprehensively evaluate most of the portfolio of products over time.

Outline of Requirements

The Commission has provided overarching guidance on the requirements for Public Service's EM&V activities in a number of places, including the Gas Rule (C.C.R. 723-4-4755) and the approved Settlement Agreements for the Company's 2009/10 DSM Plan (Proceeding No. 08A-366EG). Additionally, guidance regarding specific EM&V requirements was added in the approved Settlement Agreement for the Company's 2012/13 DSM Plan (Proceeding No. 11A-631EG).

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 process, 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 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.

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

- The ongoing M&V will be conducted annually for all products. Comprehensive evaluations will be conducted on a staggered schedule over several years.
- The ongoing M&V results will be reported within each annual DSM Status Report.
- For products that use a sampling methodology for M&V, it will address sampling bias and all samples will be designed to yield statistically significant results.
- For products that are selected for a comprehensive impact evaluation, assessment of free ridership, spillover, and net-to-gross (NTG) will be included as a study objective.
- Subsequent DSM Plan applications shall reflect the results of ongoing M&V, results of completed comprehensive evaluations, and results of any other DSM studies that are reviewed.
- The annual M&V evaluation report will include an assessment of whether the DSM products have been implemented as set forth in the Commission-approved Plan.

Changes to M&V Methodology in 2014

For 2014, the product year is split into two distinct segments, and different technical assumptions are applied to each time period. For the achievements realized between January 1 and April 30, 2014, the 2012/13 DSM Plan technical assumptions are used to calculate net savings. For the achievements realized between May 1 and December 31, 2014, the 2014 DSM Plan technical assumptions are used to calculate net savings. All savings achieved in 2014 apply the same realization and installation rates resulting from M&V conducted in 2014, regardless of the time periods.

As discussed and approved as part of the 2015/16 DSM Plan, the Company is transitioning to a different M&V assessment period. Previously, the Company utilized a January 1 through December 31 M&V period to coincide with the product year. However, with the calendar year M&V period it was difficult to complete all required M&V and obtain the final results prior to the DSM Annual Status Report deadline on April 1. Moving forward, the Company will use the time period November 1 through October 31 for its M&V period, which will reduce lag time in data reporting, enabling 12-months of M&V data to be available by year-end to support data analysis for the DSM Annual Status Report. For this transition year, the Company is using the M&V results from January 1, 2014 – October 31, 2014 to determine net savings for the 2014 DSM Annual Status Report. Starting in 2015, the November 1, 2014 – October 31, 2015 data will be utilized for the 2015 DSM Annual Status Report; and the November through October M&V period will continue into the future.

2014 M&V Results

The following paragraphs provide the M&V activities and results for each of the DSM products offered by the Company in 2014. All M&V activities followed the processes described above and outlined in the M&V Plan filed with the 2012/13 and 2014 DSM Plans. Where sampling was used in the M&V process for prescriptive measures, the achieved precision and confidence level is provided.

Portfolio Results

With its best efforts, Public Service achieved portfolio realization rates of 99.7% for electric demand, 99.8% for electric energy, and 100.2% for natural gas energy in 2014. Applying the results to the portfolio's gross savings, the Company achieved 80,957 net generator kW, 391,615,207 net generator kWh, and 606,995 net Dth of DSM savings.

Business Products

Commercial Refrigeration Efficiency

The Commercial Refrigeration Efficiency product offers prescriptive and custom rebates, as well as direct installation of several refrigeration efficiency measures. M&V of the prescriptive component of the product was performed by Nexant, following the prescriptive protocols described above. Public Service completed 188 prescriptive Commercial Refrigeration Efficiency projects. Of these projects, Nexant performed 32 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors. The final demand and energy realization rates for the 2014 Commercial Refrigeration Efficiency prescriptive measures were $100.0\% \pm 0.0\%$ and $100.0\% \pm 0.0\%$, respectively, around the targeted 90% confidence level.

The Company completed six custom Commercial Refrigeration Efficiency projects in 2014. The custom component was reviewed by internal engineers following the custom protocols described above. The direct installation component of the product was verified by the third-party program implementer.

Compressed Air Efficiency

The Compressed Air Efficiency product offers prescriptive, custom, and study rebates. M&V of the prescriptive component of the product was performed by Nexant, following the prescriptive protocols described above. Public Service completed 21 prescriptive Compressed Air Efficiency projects. Of these projects, Nexant performed 32 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors. The final demand and energy realization rates for the 2014 Compressed Air Efficiency prescriptive measures were $100.3\% \pm 0.0\%$ and $100.5\% \pm 0.0\%$, respectively, around the targeted 90% confidence level. The Company completed 12 studies and 12 custom Compressed Air Efficiency projects in 2014. The custom component was reviewed by internal engineers following the custom protocols described above.

Computer Efficiency

The Computer Efficiency product offers prescriptive rebates, which were measured and verified in a multi-step process. First, Public Service confirmed that all computers reported by the third-party implementer, Ecova, were shipped to Public Service zip codes. Then product performance was reviewed by Nexant, following the prescriptive protocols described above. In 2014, the Computer Efficiency product provided 44,100 upstream manufacturer incentives with a final installation rate of 100%. In addition, Public Service rebated a total of 60 virtual desktop infrastructure installations to two participants. Nexant conducted field inspections of both projects to determine whether the measures were properly installed and had the potential to generate savings. The final demand and energy

realization rates for the 2014 Computer Efficiency prescriptive measures were $100.0\% \pm 0.0\%$ and $100.0\% \pm 0.0\%$, respectively, around the targeted 90% confidence level.

Cooling Efficiency

The Cooling Efficiency product offers prescriptive, custom, and study rebates. M&V of the prescriptive component of the product was performed by Nexant, following the prescriptive protocols described above. Public Service completed 335 prescriptive Cooling Efficiency projects. Of these projects, Nexant performed 35 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors. The final demand and energy realization rates for the 2014 Cooling Efficiency prescriptive measures were $100.0\% \pm 0.0\%$ and $100.0\% \pm 0.0\%$, respectively, around the targeted 90% confidence level. The Company completed 35 studies and 4 custom Cooling Efficiency projects in 2014. The custom component was reviewed by internal engineers following the custom protocols described above.

Custom Efficiency

The Custom Efficiency product offers custom rebates. Public Service completed 8 electric, 1 gas, and 5 combination electric/gas Custom Efficiency projects in 2014. All Custom projects were reviewed by internal engineers following the custom protocols described above.

Data Center Efficiency

The Data Center Efficiency product offers rebates for study-driven and non-study-driven prescriptive and custom projects. M&V for the prescriptive measures are handled through the relevant end-use product (typically Cooling Efficiency, Lighting Efficiency, and/or Motor Efficiency). All Custom projects were reviewed by internal engineers following the custom protocols described above. The Data Center Efficiency product completed 16 projects and one study in 2014.

Energy Management Systems

The Energy Management Systems product provides custom rebates. Measurement and verification of this product follows the custom protocols described above. In 2014, the EMS product completed 48 electric and 22 gas projects.

Heating Efficiency

The Heating Efficiency product provides prescriptive and custom rebates for efficient heating equipment. In 2014, M&V of the prescriptive component of the product was performed by Nexant, following the prescriptive protocols described above. Public Service completed 147 prescriptive Heating Efficiency projects. Of these projects, Nexant performed 32 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors. The final demand and energy realization rates for the 2014 Cooling Efficiency prescriptive measures were $100.0\% \pm 0.0\%$ and $100.0\% \pm 0.0\%$, respectively, around the targeted 90% confidence level. The Company completed one custom Heating Efficiency projects in 2014. The custom component was reviewed by internal engineers following the custom protocols described above.

Lighting Efficiency

The Lighting Efficiency product offers prescriptive, custom, and study rebates. In 2014, M&V of the prescriptive component of the product (Retrofit and New Construction) was performed by Nexant, following the prescriptive protocols described above. Public Service completed 556 prescriptive Lighting Efficiency projects. Of these projects, Nexant performed 44 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors. The final demand and energy realization rates for the 2014 Lighting Efficiency prescriptive measures were 96.8% ± 3.3% and 98.3% ± 2.2%, respectively, around the targeted 90% confidence level. The Company completed 1,760 custom Lighting Efficiency projects in 2014. The custom component was reviewed by internal engineers following the custom protocols described above.

Motor and Drive Efficiency

The Motor and Drive Efficiency product offers prescriptive and custom rebates. In 2014, M&V of the prescriptive component of the product was performed by Nexant, following the prescriptive protocols described above. Public Service completed 376 prescriptive Motor and Drive Efficiency projects. Of these projects, Nexant performed 39 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors. The final demand and energy realization rates for the 2014 Motor and Drive Efficiency prescriptive measures were $100.0\% \pm 0.0\%$ and $100.0\% \pm 0.0\%$, respectively, around the targeted 90% confidence level. The Company completed 7 custom Motor and Drive Efficiency projects in 2014. The custom component was reviewed by internal engineers following the custom protocols described above.

New Construction

Public Service's New Construction product offers prescriptive Energy Efficient Buildings and custom Energy Design Assistance rebates. Measurement and verification are performed on all New Construction projects, whether prescriptive or custom. The Company completed 94 projects (56 electric and 38 natural gas) under the Energy Efficient Buildings component in 2014. M&V for these projects was performed by Nexant. Public Service completed 53 electric projects and 39 gas projects under Energy Design Assistance. The Weidt Group and Group 14 conducted verification on these projects. All adopted measures received a visual verification. This information was used in our savings reports and for rebate payment. Since all project savings are calculated based on independent verification, this product has a realization rate of 100%.

Process Efficiency

The Process Efficiency product offers prescriptive and custom rebates. Prescriptive rebates are identified by their end-use. Measurement and verification of those measures is performed with the end-use product. In 2014, M&V of the prescriptive component of the product was performed by Nexant, following the prescriptive protocols described above. In 2014, Public Service completed 23 prescriptive Process Efficiency projects, 2 in Cooling, 7 in Lighting, and 14 in Motors and Drives. These projects were included in the pool of prescriptive projects on which Nexant performed field inspections. The Company applied the realization rates determined for the prescriptive end-use products (Cooling Efficiency, Lighting Efficiency and Motor and Drive Efficiency) to calculate final demand and energy savings for the prescriptive component of the Process Efficiency product. The Company

completed 9 custom Process Efficiency projects in 2014. The custom component was reviewed by internal engineers following the custom protocols described above.

Recommissioning

The Recommissioning product offers study and custom rebates. Public Service completed 23 electric and 9 natural gas studies and 13 electric and 3 gas Recommissioning projects in 2014. The measurement and verification of these projects was relatively simple because each implemented measure resulted from a previous Recommissioning study completed by an independent party. 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. In turn, each study was thoroughly reviewed and approved by a qualified Public Service engineer.

Segment Efficiency

Public Service completed four prescriptive projects in 2014, two in Lighting and two in Motors & Drives. The Company used the realization rates determined for the end-use products (Lighting Efficiency and Motor and Drive Efficiency) to calculate final demand and energy savings for this prescriptive project. Public Service completed one custom Segment Efficiency project in 2014. The custom project was reviewed by internal engineers following the custom protocols described above.

Self-Directed Custom Efficiency

The Self-Directed Custom Efficiency product offers custom rebates. Customers completed two Self-Directed projects in 2014. The projects were measured and verified using individualized customer-developed and Public-Service approved M&V Plans. All measurement and verification was required to be performed in accordance with the International Performance Measurement and Verification Protocol (IPMVP) guidelines. Upon project completion, participants submitted project completion reports that include raw metering results and engineering calculations to demonstrate actual energy and demand savings based on pre- and post-monitoring results. All projects were reviewed by the internal energy efficiency engineers and/or managers, depending on their size. The rebate amount was based on these results.

Small Business Lighting

The Small Business Lighting product offers prescriptive and custom rebates. In 2014, M&V of the prescriptive component of the product was performed by Nexant, following the prescriptive protocols described above. Public Service completed 391 prescriptive Small Business Lighting projects. Of these projects, Nexant performed 36 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors. The final demand and energy realization rates for the 2014 Small Business Lighting prescriptive measures were $98.8\% \pm 1.6\%$ and $99.0\% \pm 1.2\%$, respectively, around the targeted 90% confidence level. The Company completed 110 custom Small Business Lighting projects in 2014. The custom component was reviewed by internal engineers following the custom protocols described above.

Standard Offer

The Standard Offer product offers study and custom rebates. In 2014, Public Service rebated two studies, five electric projects and one gas Standard Offer project. Measurement and verification of this product is the responsibility of the participants. Each participant was required to provide a measurement and verification plan in their technical energy audit. The M&V plan must meet sound engineering practices and industry standard references such as the International Performance Measurement & Verification Protocol and include annual measurement for a minimum of three years after installation. The ESCO or a third-party (depending which was utilized by the customer) implemented the M&V plan, and used the collected data to determine the actual savings for the implemented measures. The Company's internal energy efficiency engineers reviewed all metering data and paid additional rebates for savings above the expected levels. Conversely, the customer must refund a portion of the rebate if savings are not as high as expected.

Residential Products

ENERGY STAR New Homes

Public Service's ENERGY STAR New Homes product offers prescriptive rebates. In 2014, the product was administered by a third-party implementer, Residential Science Resources, Inc. (RSR). All homes rebated through this product were subject to verification by a qualified Home Energy Rating Service (HERS) Rater and their associated Residential Energy Services Network (RESNET) 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 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 product is 100%. In 2014, 2,228 electric and 3,295 gas homes successfully completed the program requirements.

Evaporative Cooling Rebate

The Evaporative Cooling Rebate product provides prescriptive rebates to customers who purchase efficient evaporative cooling units. In 2014, M&V of this product was performed by Nexant, following the prescriptive protocols described above. Public Service rebated 3,402 evaporative coolers. Of these projects, Nexant performed 44 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors. The final demand and energy realization rates for the 2014 Evaporative Cooling Rebate product were $100.0\% \pm 0.0\%$ and $100.0\% \pm 0.0\%$, respectively, around the targeted 90% confidence level.

Heating System Rebate

The Heating System Rebate product provides prescriptive rebates to customers who install efficient furnaces and boilers. In 2014, M&V of this product was performed by Nexant, following the prescriptive protocols described above. Public Service rebated 1,684 electric and 3,255 gas units. Of these projects, Nexant performed 44 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings

factors. The final demand, energy, and gas realization rates for the 2014 Heating System Rebate product were $100.0\% \pm 0.0\%$, $100.0\% \pm 0.0\%$, and $100.0\% \pm 0.0\%$, respectively, around the targeted 90% confidence level.

High Efficiency Air Conditioning

The High Efficiency Air Conditioning Product provides rebates to customers who purchase high-efficiency equipment, properly install high efficiency air-conditioning equipment, or trade-in their old, inefficient equipment and purchase of high-efficiency equipment. Because air conditioners can only be field tested when the ambient outdoor temperature is above 70°F (or 55°F with a Field Diagnostic Services Inc. tool), this product maintains a slightly different M&V calendar than Public Service's other DSM products. Specifically, air conditioners that are installed after October 1 of each year will not be inspected until the following spring, and thus, the M&V period for this product runs from October 1 to September 30 of each year.

The three product components have different M&V processes. M&V for the new equipment purchase and quality installation were considered together and performed by Group 14 Engineering. The M&V process was designed to verify that the installed equipment matched what was rebated and that the equipment was installed according to quality installation standards, as described by the Air Conditioning Contractors of America. The M&V involved an ongoing random sampling of rebated projects, following the prescriptive protocols described above. To verify a quality installation, the Verification Contractor confirmed that a Manual J calculation was performed and that the participant's refrigeration charge, airflow, and duct leakage were within acceptable ranges. Public Service rebated a total of 3,058 new equipment purchases and 3,281 quality installations in 2014. The final demand and energy savings realization rates for the New Equipment component of the product in 2014 were 100.0% ± 0.0% and 100.0% ± 0.0%, respectively, around the targeted confidence level of 90%. The final demand and energy savings realization rates for the Quality Installation component of the product in 2014 were 87.4% and 87.3%, respectively, around the targeted confidence level of 90%.

M&V for the Trade-In component of the High Efficiency Air Conditioning Product was performed by Public Service since the original equipment removal was conducted by independent HVAC contractors. For each of the 2,447 retirements rebated, the contractor was required to report to Public Service the type and age of equipment being removed. Public Service then spot-checked the provided paperwork to confirm that the removed equipment met product requirements. The final demand and energy savings realization rates for the Trade-In component of the product in 2014 were $100.0\% \pm 0.0\%$ and $100.0\% \pm 0.0\%$, respectively, around the targeted confidence level of 90%.

Home Lighting & Recycling

The Home Lighting & Recycling product provides prescriptive point-of-sale rebates to customers who purchase qualifying CFL and LED light bulbs. In 2014, Nexant performed the Home Lighting & Recycling product measurement and verification. The verification process consisted of cross-checking Public Service's tracking databases with a sample of monthly or weekly invoices and invoice details from various manufacturers submitted to retailers. These invoices contained product buy-down dollar amounts and counts for each

item SKU. No customer contact was made for the measurement and verification of this product. There were 3,701,514 CFLs and 605,003 LEDs sold to 1,227,880 participants and 24,923 bulbs recycled in 2014. Nexant examined and verified 44 invoice line detail items out of the total 68,084 records contained within the Company's program tracking database. The 44 line items were taken from a sample of 252 monthly manufacturer invoices and associated invoice details. This effort uncovered no discrepancies between Xcel Energy's database and the invoice data.

Home Performance with ENERGY STAR

The Home Performance with ENERGY STAR product provides prescriptive rebates to residential customers. In 2014, Public Service's third-party product implementer, CLEAResult, performed verification of home improvements, including a blower door test to verify the natural air changes per hour, a Combustion Appliance Zone test, and inspections of all work performed. There were 305 electric and 348 gas homes completed in 2014. Due to the extensive testing performed on each home, this product is assumed to have a realization rate of 100%.

Insulation Rebate

The Insulation Rebate product provides prescriptive rebates to customers who add insulation to their homes. In 2014, M&V of this product was performed by Nexant, following the prescriptive protocols described above. Public Service rebated 339 electric and 787 gas-heated homes. Of these projects, Nexant performed 43 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors. The final demand, energy, and gas realization rates for the 2014 Insulation Rebate product were $97.8\% \pm 4.0\%$, $97.0\% \pm 4.0\%$, and $105.7\% \pm 3.3\%$, respectively, around the targeted 90% confidence level.

Pool Pumps

The Pool Pumps product, administered by a third-party implementer, Ecova, provides a point-of-purchase prescriptive rebate to residential electric customers and a trade incentive to partners who sell qualifying energy efficient variable speed swimming pool pumps. In 2014, M&V of this product was performed by Nexant, following the prescriptive protocols described above. Public Service rebated 106 qualifying pool pumps. To verify these results, Nexant performed 11 field inspections of installed energy efficient equipment at randomly-selected participant locations to confirm that the participant was an Xcel Energy customer and that the equipment was installed. The final demand and energy realization rates for the 2014 Pool Pumps product were $100.0\% \pm 0.0\%$ for electric demand and $100.0\% \pm 0.0\%$ for electric energy savings, around the targeted 90% confidence level. The installation rate was 91.7%.

Refrigerator Recycling

The Refrigerator Recycling product provides a rebate to customers who retire their old, inefficient, but operational refrigerators and freezers. In 2014, M&V of this product was performed by Nexant, following the prescriptive protocols described above. The Company recycled 7,687 refrigerators. To verify these results, Nexant performed phone of 44 randomly-selected participants and confirmed that the old refrigerator or freezer was

operational and removed from the home as reported. The final realization rates for the 2014 Refrigerator Recycling product were $100.0\% \pm 0.0\%$ for both demand and energy savings.

School Education Kits

The School Education Kits product provides curriculum and educational materials to teachers and efficiency measures to school children to teach them more about energy efficiency. In 2014, the Product included 38,691 school children. Program administration, measurement, and verification for the School Education Kits product were conducted by a third-party vendor, AM Conservation. AM Conservation used parental surveys to determine which measures were installed in the home. The 2014 year-end savings for the program were determined using the installation rates by measure determined by AM Conservation, which were 54.6% for CFLs and 57.3% for LEDs.

Water Heating Rebate

The Water Heating Rebate product provides prescriptive rebates to customers who purchase new, energy efficient water heaters. In 2014, M&V of this product was performed by Nexant, following the prescriptive protocols described above. Public Service provided 53 electric and 1,704 gas rebates in 2014. Of these projects, Nexant performed 45 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors. The final demand, energy, and gas realization rates for the 2014 Water Heating Rebate product were $100.0\% \pm 0.0\%$, $100.0\% \pm 0.0\%$, and $100.0\% \pm 0.0\%$, respectively, around the targeted 90% confidence level.

Saver's Switch

Public Service's load management group selected 100 random customer sites from the Saver's Switch population in Colorado. Data loggers were installed on these sites to monitor air conditioning usage during control days and non-control days. The data obtained was analyzed by another third-party, DNV GL (formerly KEMA). KEMA established a stable forecast estimate of 1.10 generator kW per smart switch of available load relief. This resulted in a realization rate of 102.8%, when compared to the savings of 1.07 gen kW per switch originally anticipated in the 2012/13 DSM Plan and 99.5% when compared to the savings of 1.105 gen kW per switch anticipated in the 2014 DSM Plan. Note that the measurement and verification performed on Saver's Switch does not include switches deployed in 2014. The sampling is conducted in the spring before any switches are installed and the sample premises are monitored throughout the cooling season.

Energy Efficient Showerheads

The Energy Efficient Showerheads product provides customers with free 1.5 gpm showerhead, 1.5 gpm kitchen faucet aerator, and 1.0 gpm bathroom faucet aerator. In 2014, Public Service provided 6,036 showerheads to electric customers and 31,675 showerheads to gas customers. CustomerLink performed a phone survey of a random sampling of customers who received a free showerhead and aerators. Based on the phone survey results, the installation rate was 68% for showerheads, 53% for kitchen aerators, and 55% for bathroom aerators.

Low-Income Products

Energy Savings Kit

The Energy Savings Kits product provides energy efficiency kits to low-income customers. In 2014, the product delivered 5,429 electric kits and 7,787 gas kits. This product was implemented by a third-party provider, Energy Federation Inc., who identified incomequalified customers to receive kits. CustomerLink performed a phone survey to those customers who received a kit. Installation rates were found to be 47% for aerators, 82% for CFLs, and 59% for showerheads.

Multi-Family Weatherization

The Multi-Family Weatherization product offers weatherization measures to qualifying low-income multi-family buildings. In 2014, Public Service completed 31 electric and 14 gas Multi-Family Weatherization projects. The third-party program implementer, Energy Outreach of Colorado, 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 100%.

Non-Profit Weatherization

The Non-Profit Weatherization product offers weatherization services to non-profit organizations. In 2014, the product completed 33 electric and 26 gas projects. Public Service's third-party program implementer, Energy Outreach of Colorado, 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 100%.

Single-Family Weatherization

The Single-Family Weatherization product provides weatherization to low-income single-family homes. In 2014, 3,142 electric and 2,458 gas homes were weatherized. Public Service's third-party product implementers, the Colorado Energy Office and Energy Outreach Colorado, managed the 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. 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 100%.

Pilot Products

The 2014 direct impact pilot products included:

- Business Energy Feedback Pilot (direct impact),
- Multifamily Building Pilot (direct impact), and
- Residential Energy Feedback Pilot (direct impact),
- Smart Thermostat Pilot (direct impact).

Business Energy Feedback Pilot

The Energy Feedback Pilot offers customers a variety of methods of feedback on their energy consumption in order to quantify how these different forms of feedback impact customers' energy use. In 2014, the Energy Feedback Pilot contacted 10,486 electric customers and 6,942 gas customers. This program was implemented a third-party provider, OPower, and M&V was performed by Cadmus. In 2014, the realization rate for the Energy Feedback Pilot was 100.0%.

Multifamily Building Pilot

The Multifamily Building pilot will test delivery of energy efficiency resources to the residential multifamily housing market via an energy assessment, direct-install of energy savings measures, and custom projects. This pilot was launched late in 2014 and no savings were achieved.

Residential Energy Feedback Pilot

The Energy Feedback Pilot offers customers a variety of methods of feedback on their energy consumption in order to quantify how these different forms of feedback impact customers' energy use. In 2014, the Energy Feedback Pilot contacted 124,393 electric/gas combination customers. This program was implemented and analyzed by a third-party provider, OPower, and M&V of My Energy was performed by Cadmus. In 2014, the realization rate for the Energy Feedback Pilot was 100.0%.

Smart Thermostat Pilot

The pilot will provide customers with rebates to purchase and install qualifying Wi-Fi connected thermostats to study the energy efficiency benefits, as well as test demand response benefits associated with those devices. This pilot was launched late in 2014 and no savings were achieved.

Post-Program Year Activities

All measurement and verification activities for the 2014 performance year were completed in 2014 or early in 2014 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.

<u>Product Process and Impact Evaluations Performed in 2014</u>

Public Service contracted for evaluators to perform process and impact evaluations on two direct impact products and one indirect impact product in 2014: Energy Management Systems, Low-Income Multi-Family Weatherization, and Energy Efficiency Financing, respectively. The following sections provide an overview of the findings of the evaluations and the evaluators' recommendations. The Company intends to address any recommended changes coming from these comprehensive evaluations through 60-Day Notices corresponding to the evaluation recommendations and Company responses.

Energy Management Systems

Tetra Tech Inc. conducted a comprehensive process evaluation of the Energy Management Systems product, which included interviews of Public Service staff, program participants, trade allies, and peer-utility staff, and a benchmarking study of other utility programs. While recognizing that the overall Energy Management Systems product operates effectively and is well-situated to promote EMS, the Tetra Tech team made a number of suggestions for both process and impact improvements that may be made to the product. The team had the following recommendations:

- Continue current portfolio-wide efforts to review and revise program-level goals as needed to ensure goals are achievable and reasonable;
- Continue to monitor the program's cost-effective delivery as a stand-alone program versus integrated delivery;
- Further assess situations when the integration of lighting controls into EMS systems is the best option for participants and consider program strategies to encourage the integration of lighting controls in those situations. Strategies could include targeted offerings to segments with the greatest savings potential and/or facilitating partnerships between mechanical and lighting contractors;
- If determined to be cost-effective, proceed with ongoing plans for an EMIS offering in response to the growing demand for informational systems in the Colorado market;
- Monitor the influence of current and any new program offerings, such as EMIS, on the customer decision-making process. If participation levels permit, consider quantitatively measuring free-ridership and spillover effects to ensure the program's NTG assumptions accurately reflect program attribution;
- Maintain current internal communication processes and continue to ensure there are adequate resources to effectively administer program functions;
- Continue efforts to optimize the tracking systems for administration and evaluation purposes and continue exploring opportunities to further enhance system capabilities, weighing the associated benefits and costs of these efforts;
- Continue ongoing outreach efforts to EMS contractors, educating them on program requirements. Be proactive in informing trade allies of key program design changes and consider strategies for leveraging the trade infrastructure to support the implementation of those changes;
- Encourage customers and contractors to provide as much detail on their proposed
 project, including any expected energy savings estimates, upfront in their proposals
 to facilitate comparison with Xcel Energy's energy savings analysis. In cases where
 there are substantial discrepancies between energy savings estimates, attempt to
 reconcile these differences with the contractor or customer who submitted the
 proposal before preapproving or rejecting the project;
- Consider cost-effective strategies to document system setting changes made postimplementation and assess the impact of these changes on realized energy savings.
 Possible strategies could include reviewing the program's M&V protocols and/or
 conducting a formal impact evaluation of the program. Any additional costs of these
 efforts should be balanced with the potential associated benefits and program
 savings, in accordance with industry standards;

- Continue to tailor customer outreach messaging and encourage sales staff and trade allies to highlight additional benefits to installing EMS beyond energy savings to find the messaging that resonates best with customers; and
- Continue current efforts to maintain high participant satisfaction and monitor issues that could lead to dissatisfaction.

All of these recommendations are currently being reviewed by Public Service. Any changes that might affect impact assumptions will be publicized through 60-Day Notice prior to implementation.

Multi-Family Weatherization

The Cadmus Group Inc. conducted a process evaluation of the Low-Income Multi-Family Weatherization product in 2014, which included interviews with internal staff, third-party implementation staff, and participating trade allies; surveys with participating customers; and a benchmarking study of other utility programs. The results of this evaluation revealed program success in many areas, including high satisfaction reported by customers and contractors. The team's recommendations are to:

- Consider developing a formal quality assurance and control feedback mechanism between EOC and trade allies to ensure that customer concerns and complaints are fully documented and addressed.
- Consider partnering with EOC to explore the degree to which split incentives affect landlords with low income tenants beyond the Metro area, thus substantiating the potential market size and/or perhaps identifying new areas for program targeting.
- Consider expanding the product marketing toolbox, such as promoting case studies and/or hosting events to showcase recently finished projects to potential participants, and to leverage trade allies to actively promote the product.
- Consider training EOC staff on cost-effectiveness to increase their ability to communicate with trade allies and customers regarding why some measures do not receive approval.
- Consider hosting an annual meet-and-greet with trade allies to review product participation requirements as well as roles and responsibilities for product engagement.

All of these recommendations are currently being reviewed by Public Service. Any changes that might affect impact assumptions will be publicized through 60-Day Notice prior to implementation.

Energy Efficiency Financing

The Cadmus Group Inc. conducted a process evaluation of the indirect impact Energy Efficiency Financing product in 2014, which included interviews with internal program management, trade channel, and call center staff, third-party implementation staff, lending partners, Cities of Boulder and Denver program representatives, and participating trade allies, as well as surveys with participating customers. The results of this evaluation revealed program success in many areas, including high satisfaction reported by customers and contractors. The team's recommendations are to:

- The program goals are not appropriate for a newly-launched statewide program; they are overly ambitious. Xcel Energy should file adjusted goals based on their own loan volume to date. Goals should be ambitious, and reflect the anticipated results of continued training, stabilization and expansion of loan products and allies, and streamlined implementation through ongoing experience.
- SolarRewards may be a strong complement to the financing program. Meet with
 each lender to discuss the solar program, and how combining efficiency and solar
 incentives with financing for a whole package of improvements might be a successful
 marketing approach.
- Continue to provide training and outreach to all parties. In addition, provide
 organized resources for staff and allies to consult on their own time, when they have
 specific questions, that will quickly inform them of program updates.
- Consider focusing marketing on the program entry channels that show the most promise: namely, through the Boulder and Denver programs and the trade ally networks. In particular, Xcel Energy could put more resources toward engaging trade allies in the program.
- Xcel Energy should consider ways to increase the contact and relationships between the lenders and the trade allies.
- Identify a residential lender that can offer a statewide unsecured consumer loan product with a fast, streamlined application process.
- Update the program MOU to identify the person or persons at each organization
 who are responsible for communicating with Xcel Energy, as well as identifying
 other responsibilities such as who will be responsible for designing, managing, and
 funding marketing efforts. In addition, have each lender assign a central point of
 contact to facilitate the program operations.
- Modify the MOU so that Xcel Energy obtains enough data to determine if a loan recipient submits a rebate application. Follow up with loan customers, using data collected through the loan application process, to remind them of specific rebates available to them. Direct customers to the call center to get assistance with submitting the rebate application.
- Update the marketing materials to include a few briefer pieces that incorporate stories of completed projects, images of actual borrowers (or people that look like actual borrowers), and other features that will make easier for customers to connect the program with their own situation.
- In order to provide consistency in messaging, and because lenders are unwilling to invest many resources into promoting rebates, consider taking a lead role in marketing the EEFP, and in designing and implementing marketing campaigns. One component might be to develop a "road map" that outlines each step of the process and directs them back to Xcel Energy for additional incentives through other programs. This tool could be used as a leave-behind for trade allies and lenders, or as a direct-to-consumer mailing.

All of these recommendations are currently being reviewed by Public Service. Any substantive changes requiring notification will be publicized through 60-Day Notice prior to implementation.

M&V Results

The following pages provide Tables 17a and 17b, which describe the installation rates and realization rates used to calculate net, verified savings by program component in 2014 prior to May 1. Tables 17c and 17d describe the installation rates and realization rates used to calculate net, verified savings by program component in 2014 after April 30. Tables 17e and 17f provide the full calendar year data for 2014.

Key terms shown in the column headings of Tables 17a-17f are defined here:

Column Heading	Definition
2014 Product	The DSM product offered by Public Service in 2014.
End-Use Measure	Whether the product was prescriptive or custom, or the product
Type	components, if the M&V process differed for different projects within a
	single product.
Gross Gen kW	The gross electric demand savings at the generator after line losses and
	coincidence with peak are factored in.
Gross Gen kWh	The gross electric energy savings at the generator after line losses are
	removed.
Gross Dth	The gross natural gas energy savings.
Installation Rate	The percent of measures that were installed, as opposed to purchased.
Demand (kW)	The ratio of gross electric demand savings measured in the M&V process to
Realization Rate	the electric demand savings claimed in the rebate application, expressed as a
	percentage.
Energy (kWh)	The ratio of gross electric energy savings measured in the M&V process to
Realization Rate	the electric energy savings claimed in the rebate application, expressed as a
	percentage.
Energy (Dth)	The ratio of gross natural gas energy savings measured in the M&V process
Realization Rate	to the gas energy savings claimed in the rebate application, expressed as a
	percentage.
Verified Gross Gen	The gross demand savings at the generator after the installation and
kW	demand realization rates have been applied.
Verified Gross Gen	The gross energy savings at the generator after the installation and energy
kWh	realization rates have been applied.
Verified Gross Dth	The gross savings after the installation and gas realization rates have been
	applied.
Electric Demand	The net-to-gross ratio (percentage) applied to the Verified Gross Gen kW
NTG	value to arrive at the Verified Net Gen kW value.
Electric Energy NTG	The net-to-gross ratio (percentage) applied to the Verified Gross Gen kWh
	value to arrive at the Verified Net Gen kWh value.
Gas NTG	The net-to-gross ratio (percentage) applied to the Verified Gross Dth value
	to arrive at the Verified Net Dth value.
Verified Net Gen kW	The final demand savings at the generator achieved once the installation
	rate, realization rate, and net-to-gross ratio were applied.
Verified Net Gen	The final energy savings at the generator achieved once the installation rate,
kWh	realization rate, and net-to-gross ratio were applied.
Verified Net Dth	The final gas savings achieved once the installation rate, realization rate, and
	net-to-gross ratio were applied.

Table 17a: 2014 (Pre-5.1.2014) Business Segment Installation Rates, Realization Rates, and Final Net, Verified Savings by Program Component

2014 Products January 1 - April 30, 2014	End-Use/Measure Type	Gross Peak Gen kW	Gross Gen kWh	Gross Dth	Install Rate	Demand (kW) Realization Rate	Energy (kWh) Realization Rate	Energy (Dth) Realizatio n Rate	Verified Gross Gen kW	Verified Gross Gen kWh	Verified Gross Dth	Elec Demand NTG	Elec Energy NTG	Gas NTG	Verified Net Gen kW	Verified Net Gen kWh	Verified Net Dth
Business Segment																	
Commercial Refrigeration	Prescriptive and Custom	176	1,851,129	291.200	100.0%	100.0%	100.0%	100.0%	175.6	1,851,129	291	96.6%	98.5%	100.0%	170	1,823,623	291
C 1 A.	Prescriptive	53	207,031	N/A	100.0%	100.0%	100.0%	N/A	53	207,031	N/A	87.0%	87.0%	N/A	46	180,117	N/A
Compressed Air Efficiency	Studies	22	160,909	N/A	100.0%	100.0%	100.0%	N/A	22	160,909	N/A	87.0%	87.0%	N/A	19	139,991	N/A
Efficiency	Custom	69	575,769	N/A	100.0%	100.0%	100.0%	N/A	69	575,769	N/A	87.0%	87.0%	N/A	60	500,919	N/A
Computer Efficiency	Prescriptive	352	2,569,908	N/A	100.0%	100.0%	100.0%	N/A	352	2,569,908	N/A	88.0%	88.0%	N/A	309	2,262,667	N/A
Cooling Efficiency	Prescriptive	305	1,166,290	N/A	100.0%	100.0%	100.0%	N/A	305	1,166,290	N/A	80.0%	80.0%	N/A	244	933,032	N/A
Cooling Efficiency	Custom	47	46,693	N/A	100.0%	100.0%	100.0%	N/A	47	46,693	N/A	87.0%	87.0%	N/A	41	40,623	N/A
Custom Efficiency	Custom	153	2,434,524	3,080.3	100.0%	100.0%	100.0%	100.0%	153	2,434,524	3,080	87.0%	87.0%	93.0%	134	2,118,036	2,865
Data Center Efficiency	Prescriptive and Custom	496	6,589,630	N/A	100.0%	100.0%	100.0%	N/A	496	6,589,630	N/A	89.7%	84.8%	N/A	445	5,585,913	N/A
EMS	Custom	7	1,480,567	1,095.7	100.0%	100.0%	100.0%	100.0%	7	1,480,567	1,096	87.0%	87.0%	93.0%	6	1,288,093	1,019
Heating Efficiency	Prescriptive	N/A	N/A	7,279.5	100.0%	N/A	N/A	100.0%	N/A	N/A	7,280	N/A	N/A	86.0%	N/A	N/A	6,260
Lighting Efficiency	Prescriptive	2,573	13,136,750	N/A	100.0%	96.8%	98.3%	N/A	2,491	12,910,798	N/A	84.0%	84.0%	N/A	2,092	10,845,070	N/A
Lighting Efficiency	Custom	723	4,627,228	N/A	100.0%	100.0%	100.0%	N/A	723	4,627,228	N/A	96.0%	96.0%	N/A	694	4,442,139	N/A
	Prescriptive and	1,802	11,751,540	N/A	100.0%	100.0%	100.0%	N/A	1,802	11,751,540	N/A	65.0%	65.0%	N/A	1,172	7,638,501	N/A
Motor and Drive	Custom																
Efficiency	EC Motors, Motor Controllers	0	0	N/A	100.0%	100.0%	100.0%	N/A	0	0	N/A	95.0%	95.0%	N/A	0.00	0.00	N/A
New Construction	Energy Efficient Buildings	851	3,067,727	5,973.8	100.0%	100.0%	100.0%	100.0%	851	3,067,727	5,974	93.0%	93.0%	97.0%	791	2,852,986	5,794.5 9
New Construction	Energy Design Assistance	362	1,554,552	10,090.0	100.0%	100.0%	100.0%	100.0%	362	1,554,552	10,090	95.0%	95.0%	99.0%	344	1,476,824	9,989.1 0
Process Efficiency	Prescriptive and Custom	2,716	17,687,626	N/A	100.0%	99.8%	99.9%	N/A	2,709	17,664,632	N/A	90.0%	90.0%	N/A	2,438	15,898,169	N/A
Recommissioning	Custom	28	155,370	172.0	100.0%	100.0%	100.0%	100.0%	28	155,370	172	90.0%	90.0%	90.0%	25	139,833	155
g	Prescriptive Lighting	7	19,467	N/A	100.0%	96.8%	98.3%	N/A	7	19,133	N/A	97.0%	97.0%	N/A	7	18,559	N/A
Segment Efficiency	Prescriptive Motors	11	86,506	N/A	100.0%	100.0%	100.0%	N/A	11	86,506	N/A	97.0%	97.0%	N/A	11	83,911	N/A
	Custom - Lighting	6	13,015	0.0	100.0%	100.0%	100.0%	100.0%	6	13,015	0	97.0%	97.0%	94.0%	6	12,625	0
Self-Directe	Custom	0	0	N/A	100.0%	100.0%	100.0%	N/A	0	0	N/A	90.6%	90.6%	N/A	0	0	N/A
Small Business	Prescriptive	296	1,155,740	N/A	100.0%	98.82%	98.99%	N/A	293	1,144,067	N/A	100.0%	100.0%	N/A	293	1,144,067	N/A
Lighting	Custom	203	1,470,689	N/A	100.0%	100.0%	100.0%	N/A	203	1,470,689	N/A	96.0%	96.0%	N/A	195	1,411,861	N/A
Standard Offer	Custom	86	305,332	56.1	100.0%	100.0%	100.0%	100.0%	86	305,332	56	87.6%	87.6%	93.0%	76	267,470	52
Busine	ess Segment Total	15,431.495	72,113,991	28,038.6	100.0%	99.2%	99.6%	100.0%	11,252	71,853,038	28,039	85.5%	85.0%	94.2%	9,617	61,105,029	26,426

Table 17b: 2014 (Pre-5.1.2014) Residential Segment, Low-Income Segment, and Pilot Installation Rates, Realization Rates, and Final Net, Verified Savings by Program Component

2014 ProductsJanuary 1 - April 30, 2014	End- Use/Measure Type	Gross Peak Gen kW	Gross Gen kWh	Gross Dth	Installation Rate	Demand (kW) Realizatio n Rate	Energy (kWh) Realization Rate	Energy (Dth) Realization Rate	Verified Gross Gen kW	Verified Gross Gen kWh	Verified Gross Dth	Elec Demand NTG	Elec Energy NTG	Gas NTG	Verified Net Gen kW	Verified Net Gen kWh
Residential Segment																
ENERGY STAR New Homes		481	1,056,234	48,377.8	100.0%	100.0%	100.0%	100.0%	481	1,056,234	48,378	92.0%	92.0%	92.0%	443	971,735
Evaporative Cooling Rebate		656	412,640	N/A	100.0%	100.0%	100.0%	N/A	656	412,640	N/A	69.2%	68.8%	N/A	454	284,022
Heating System Rebate		0	0	25,054.4	100.0%	100.0%	100.0%	100.0%	0	0	25,054	77.0%	77.0%	77.0%	N/A	N/A
High Efficiency Air Conditioning	Equipment, Quality Install, Trade-In	332	269,691	N/A	100.0%	95.6%	96.7%	N/A	317	260,818	N/A	67.6%	67.6%	N/A	214	176,313
	GSHP	5	8,878	N/A	100.0%	100.0%	100.0%	N/A	5	8,878	N/A	100.0%	100.0%	N/A	5	8,878
Home Lighting & Recycling	CFLs	9,329	74,117,705	N/A	99.0%	100.0%	100.0%	N/A	9,236	73,376,528	N/A	85.0%	85.0%	N/A	7,851	62,370,049
Home Lighting & Recycling	LEDs	813	6,457,326	N/A	99.0%	100.0%	100.0%	N/A	804	6,392,753	N/A	100.0%	100.0%	N/A	804	6,392,753
Home Performance w/ ENERGY STAR		85	156,985	7,636.2	100.0%	100.0%	100.0%	100.0%	85	156,985	7,636	94.0%	94.0%	94.0%	80	147,566
Insulation Rebate		66	63,928	9,104.6	100.0%	97.8%	97.0%	105.7%	64	62,011	9,624	89.0%	89.0%	89.0%	57	55,189
Pool Pumps		12	32,568	N/A	100.0%	100.0%	100.0%	N/A	12	32,568	N/A	80.0%	80.0%	N/A	9	26,054
Refrigerator Recycling		152	1,335,255	N/A	100.0%	100.0%	100.0%	N/A	152	1,335,255	N/A	58.2%	58.2%	N/A	89	777,199
	CFL	0	0	N/A	54.5%	100.0%	100.0%	N/A	0	0	N/A	100.0%	100.0%	N/A	0	0
	LED	0	0	N/A	57.3%	100.0%	100.0%	N/A	0	0	N/A	100.0%	100.0%	N/A	0	0
School Education Kits	Showerhead	0	0	N/A	45.6%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	0
	Kitchen Aerator	0	0	N/A	38.3%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	0
	Bathroom Aerator	0	0	N/A	38.1%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	0
Water Heating Rebate		7	60,156	2,978.2	100.0%	100.0%	100.0%	100.0%	7	60,156	2,978	100.0%	100.0%	90.0%	7	60,156
	Showerhead	0	0	0.0	68.0%	100.0%	100.0%	100.0%	0	0	0	99.0%	99.0%	99.0%	0	0
Energy Efficient Showerheads	Kitchen Aerator	0	0	0.0	53.0%	100.0%	100.0%	100.0%	0	0	0	99.0%	99.0%	99.0%	0	0
	Bath Aerator	0	0	0.0	55.0%	100.0%	100.0%	100.0%	0	0	0	99.0%	99.0%	99.0%	0	0
Energy	Efficiency Subtotal	11,937	83,971,366	93,151.2	99.2%	99.9%	100.0%	100.6%	11,820	83,154,825	93,670	84.7%	85.7%	87.8%	10,013	71,269,914
Saver's Switch		592	19,771	N/A	100.0%	100.0%	100.0%	N/A	592	19,771	N/A	100.0%	100.0%	N/A	592	19,771
Resider	ntial Segment Total	12,529	83,991,138	93,151.2	99.2%	99.9%	100.0%	100.6%	12,412	83,174,597	93,670	85.4%	85.7%	87.8%	10,604	71,289,685
Low-Income Segment																
Low-Income Segment	Aerator	0	0	0.0	47.0%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	0
Energy Savings Kits	CFL	0	0	N/A	82.0%	100.0%	100.0%	N/A	0	0	N/A	100.0%	100.0%	N/A	0	0
Energy Suvings Into	Showerhead	0	0	0.0	59.0%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	0
Multi-Family Weatherization	Showerhead	0	0	0.0	100.0%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	0
Non-Profit Weatherization		0	0	0.0	100.0%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	0
Single-Family Weatherization		15	147,910	8,196.0	100.0%	100.0%	100.0%	100.0%	15	147,910	8,196	100.0%	100.0%	100.0%	15	147,910
Low-Income Segment Total		15	147,910	8,196.0	100.0%	100.0%	100.0%	100.0%	15	147,910	8,196	100.0%	100.0	100.0%	15	147,910
D- : E		0		0.0	100.004	100.007	100.00/	100.00/				100.004	100.007	100.00/		^
	nergy Feedback Pilot	0	7,500,028	0.0 37,246.5	100.0%	100.0%	100.0%	100.0%	0	7.500.028	0 37,247	100.0%	100.0%	100.0%	0	7.500.020
	nergy Feedback Pilot	0			100.0%	100.0%	100.0%	100.0%	0	7,500,028		100.0%	100.0%	100.0%	0	7,500,028
	amily Building Pilot	0	0	0.0	100.0%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	0
I Sm	nart Thermostat Pilot	0	0	0.0	100.0%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	0

Table 17c: 2014 (Post-5.1.2014) Business Segment Installation Rates, Realization Rates, and Final Net, Verified Savings by Program Component

2014 Products May 1 - December 31, 2014	End-Use/Measure Type	Gross Peak Gen kW	Gross Gen kWh	Gross Dth	Installati on Rate	Demand (kW) Realization Rate	Energy (kWh) Realization Rate	Energy (Dth) Realizati on Rate	Verified Gross Gen kW	Verified Gross Gen kWh	Verified Gross Dth	Elec Demand NTG	Elec Energy NTG	Gas NTG	Verified Net Gen kW	Verifi Gen
Business Segment																
Commercial Refrigeration	Prescriptive and Custom	392	3,769,912	1,142.0	100.0%	100.0%	100.0%	100.0%	391.9	3,769,912	1,142	97.0%	98.4%	100.0	380	3,7
	Prescriptive	85	343,160	N/A	100.0%	100.0%	100.0%	N/A	85	343,160	N/A	87.0%	87.0%	N/A	74	2
Compressed Air Efficiency	Studies	82	678,209	N/A	100.0%	100.0%	100.0%	N/A	82	678,209	N/A	87.0%	87.0%	N/A	71	5
	Custom	198	1,701,671	N/A	100.0%	100.0%	100.0%	N/A	198	1,701,671	N/A	87.0%	87.0%	N/A	172	1,4
Computer Efficiency	Prescriptive	1,111	8,217,086	N/A	100.0%	100.0%	100.0%	N/A	1,111	8,217,086	N/A	68.0%	68.0%	N/A	756	5,5
Cooling Efficiency	Prescriptive	1,376	3,543,087	N/A	100.0%	100.0%	100.0%	N/A	1,376	3,543,087	N/A	80.0%	80.0%	N/A	1,101	2,8
Cooling Efficiency	Custom	79	202,401	N/A	100.0%	100.0%	100.0%	N/A	79	202,401	N/A	87.0%	87.0%	N/A	69	1
Custom Efficiency	Custom	396	2,062,308	14,229.1	100.0%	100.0%	100.0%	100.0%	396	2,062,308	14,229	87.0%	87.0%	93.0%	344	1,7
Data Center Efficiency	Prescriptive and Custom	343	6,021,010	N/A	100.0%	100.0%	100.0%	N/A	343	6,021,010	N/A	92.3%	87.80 %	N/A	317	5,2
Energy Management Systems	Custom	49	8,061,232	8,422.6	100.0%	100.0%	100.0%	100.0%	49	8,061,232	8,423	87.0%	87.0%	90.0%	43	7,0
Heating Efficiency	Prescriptive	N/A	N/A	12,685.1	100.0%	N/A	N/A	100.0%	N/A	N/A	12,685	N/A	N/A	86.0%	N/A	
Listein BCCsino	Prescriptive	6,085	35,579,967	N/A	100.0%	96.8%	98.3%	N/A	5,892	34,967,991	N/A	84.0%	84.0%	N/A	4,949	29,3
Lighting Efficiency	Custom	4,658	27,993,705	N/A	100.0%	100.0%	100.0%	N/A	4,658	27,993,705	N/A	96.0%	96.0%	N/A	4,472	26,8
Marana I Dai a Efficient	Prescriptive and Custom	1,678	10,170,288	N/A	100.0%	100.0%	100.0%	N/A	1,678	10,170,288	N/A	65.0%	65.0%	N/A	1,090.77	6,6
Motor and Drive Efficiency	EC Motors, Motor Controllers	7	64,673	N/A	100.0%	100.0%	100.0%	N/A	7	64,673	N/A	95.0%	95.0%	N/A	7.01	
New Construction	Energy Efficient Buildings	1,407	4,155,317	14,486.5	100.0%	100.0%	100.0%	100.0%	1,407	4,155,317	14,487	93.0%	93.0%	97.0%	1,308	3,8
New Construction	Energy Design Assistance	6,475	27,984,671	111,414.1	100.0%	100.0%	100.0%	100.0%	6,475	27,984,671	111,414	92.7%	92.7%	99.0%	6,000	25,9
Process Efficiency	Prescriptive and Custom	1,094	11,242,057	N/A	100.0%	99.8%	99.9%	N/A	1,091	11,227,442	N/A	90.0%	90.0%	N/A	982	10,1
Recommissioning	Custom	311	5,574,616	1,162.0	100.0%	100.0%	100.0%	100.0%	311	5,574,616	1,162	90.0%	90.0%	90.0%	280	5,0
	Prescriptive Lighting	1	2,845	N/A	100.0%	96.8%	98.3%	N/A	1	2,796	N/A	97.0%	97.0%	N/A	0.717	
Segment Efficiency	Prescriptive Motors	0	0	N/A	100.0%	100.0%	100.0%	N/A	0	0	N/A	97.0%	97.0%	N/A	0	
	Custom - Lighting	0	0	N/A	100.0%	100.0%	100.0%	N/A	0	0	N/A	97.0%	97.0%	N/A	0	
Self-Directed Custom Efficiency	Custom	557	2,653,872	N/A	100.0%	100.0%	100.0%	N/A	557	2,653,872	N/A	91.0%	91.0%	N/A	507	2,4
Small Business Lighting	Prescriptive	1,342	7,146,541	N/A	100.0%	98.82%	99.0%	N/A	1,326	7,074,361	N/A	100.0%	100.0%	N/A	1,326	7,0
oman Dusiness Eignung	Custom	409	2,079,081	N/A	100.0%	100.0%	100.0%	N/A	409	2,079,081	N/A	96.0%	96.0%	N/A	393	1,9
Standard Offer	Custom	363	1,930,123	56.1	100.0%	100.0%	100.0%	100.0%	363	1,930,123	56	87.6%	87.6%	93.0%	318	1,6
·	Business Segment Total	28,499	171,177,829	163,597.5	100.0%	99.3%	99.6%	100.0%	28,287	170,479,010	163,598	88.2%	87.9%	96.7%	24,960	149,7

Table 17d: 2014 (Post-5.1.2014) Residential Segment, Low-Income Segment, and Pilot Installation Rates, Realization Rates, and Final Net, Verified Savings by Program Component

2014 ProductsMay 1 - December 31, 2014	End-Use/Measure Type	Gross Peak Gen kW	Gross Gen kWh	Gross Dth	Installation Rate	Demand (kW) Realization Rate	Energy (kWh) Realization Rate	Energy (Dth) Realization Rate	Verified Gross Gen kW	Verified Gross Gen kWh	Verified Gross Dth	Elec Demand NTG	Elec Energy NTG	Gas NTG
Residential Segment														
ENERGY STAR New Homes		594	1,318,572	57,571.4	100.0%	100.0%	100.0%	100.0%	594	1,318,572	57,571	92.0%	92.0%	92.0%
Evaporative Cooling Rebate		6,500	4,075,784	N/A	100.0%	100.0%	100.0%	N/A	6,500	4,075,784	N/A	66.6%	66.3%	N/A
Heating System Rebate		135	1,650,592	32,168.9	100.0%	100.0%	100.0%	100.0%	135	1,650,592	32,169	94.0%	94.0%	77.0%
	Equipment, Quality	4,533	3,437,433						4,332	3,324,342				
High Efficiency Air Conditioning	Install, Trade-In			N/A	100.0%	95.6%	96.7%	N/A			N/A	67.6%	67.6%	N/A
	GSHP	15	50,889	N/A	100.0%	100.0%	100.0%	N/A	15	50,889	N/A	100.0%	100.0%	N/A
Home Lighting & Beauding	CFLs	8,536	57,700,556	N/A	99.0%	100.0%	100.0%	N/A	8,451	57,123,551	N/A	70.0%	70.0%	N/A
Home Lighting & Recycling	LEDs	2,173	14,660,972	N/A	99.0%	100.0%	100.0%	N/A	2,151	14,514,362	N/A	100.0%	100.0%	N/A
Home Performance w/ ENERGY S'	ΓAR	93	241,081	8,553.3	100.0%	100.0%	100.0%	100.0%	93	241,081	8,553	94.0%	94.0%	94.0%
Insulation Rebate		81	104,264	8,941.2	100.0%	97.8%	97.0%	105.7%	79	101,136	9,451	89.0%	89.0%	89.0%
Pool Pumps		71	197,577	N/A	100.0%	100.0%	100.0%	N/A	71	197,577	N/A	80.0%	80.0%	N/A
Refrigerator Recycling		785	6,879,166	N/A	100.0%	100.0%	100.0%	N/A	785	6,879,166	N/A	57.4%	57.4%	N/A
	CFL	635	5,512,859	N/A	54.5%	100.0%	100.0%	N/A	346	3,003,039	N/A	100.0%	100.0%	N/A
	LED	156	1,352,759	N/A	57.3%	100.0%	100.0%	N/A	89	775,131	N/A	100.0%	100.0%	N/A
School Education Kits	Showerhead	0	1,939,999	56,655.9	45.6%	100.0%	100.0%	100.0%	0	884,640	25,835	100.0%	100.0%	100.0%
	Kitchen Aerator	0	240,194	7,014.3	38.3%	100.0%	100.0%	100.0%	0	91,994	2,686	100.0%	100.0%	100.0%
	Bathroom Aerator	0	410,385	12,028.3	38.1%	100.0%	100.0%	100.0%	0	156,357	4,583	100.0%	100.0%	100.0%
Water Heating Rebate		10	88,601	4,176.6	100.0%	100.0%	100.0%	100.0%	10	88,601	4,177	100.0%	100.0%	90.0%
-	Showerhead	0	1,259,243	50,316.9	67.98%	100.0%	100.0%	100.0%	0	855,975	34,203	99.0%	99.0%	99.0%
Energy Efficient Showerheads	Kitchen Aerator	0	156,804	6,335.6	53.0%	100.0%	100.0%	100.0%	0	83,106	3,358	99.0%	99.0%	99.0%
	Bath Aerator	0	267,303	9,503.4	55.0%	100.0%	100.0%	100.0%	0	147,017	5,227	99.0%	99.0%	99.0%
En	ergy Efficiency Subtotal	24,318	101,545,035	253,265.8	98.1%	99.2%	99.9%	100.2%	23,652	95,562,913	187,813	72.4%	76.1%	92.3%
Saver's Switch		10,580	189,991	N/A	100.0%	100.0%	100.0%	N/A	10,580	189,991	N/A	100.0%	100.0%	N/A
Residential Segment	Total (w/o Low-Income)	34,898	101,735,026	253,265.8	98.7%	99.4%	99.9%	100.2%	34,232	95,752,904	187,813	80.9%	76.2%	92.3%
Low-Income Segment														
	Aerator	0	94,111	3,893.5	47.0%	100.0%	100.0%	100.0%	0	44,232	1,830	100.0%	100.0%	100.0%
Energy Savings Kits	CFL	135	1,194,027	N/A	82.0%	100.0%	100.0%	N/A	111	979,102	N/A	100.0%	100.0%	N/A
	Showerhead	0	270,568	11,680.5	59.0%	100.0%	100.0%	100.0%	0	159,635	6,891	100.0%	100.0%	100.0%
Multi-Family Weatherization		320	1,933,055	10,715.8	100.0%	100.0%	100.0%	100.0%	320	1,933,055	10,716	100.0%	100.0%	100.0%
Non-Profit Weatherization		171	1,342,438	3,699.5	100.0%	100.0%	100.0%	100.0%	171	1,342,438	3,700	100.0%	100.0%	100.0%
Single-Family Weatherization		253	2,201,468	43,551.6	100.0%	100.0%	100.0%	100.0%	253	2,201,468	43,552	100.0%	100.0%	100.0%
Low-Income Segment Total		879	7,035,666	73,540.9	97.2%	100.0%	100.0%	100.0%	854	6,659,930	66,688	100.0%	100.0%	100.0%
Business Energy Feedback Pilot		0	1,857,475	0.0	100.0%	100.0%	100.0%	100.0%	0	1,857,475	0	100.0%	100.0%	100.0%
Residential Energy Feedback		7,200	20,307,464						7,200	20,307,464	54,543			
Pilot				54,542.7	100.0%	100.0%	100.0%	100.0%				100.0%	100.0%	100.0%
Mutifamily Building Pilot		0	0	0.0	100.0%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%
Smart Thermostat Pilot		0	0	0.0	100.0%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%

Table 17e: 2014 (TOTAL) Business Segment Installation Rates, Realization Rates, and Final Net, Verified Savings by Program Component

2014 Products	End-Use/Measure Type	Gross Peak Gen kW	Gross Gen kWh	Gross Dth	Installati on Rate	Demand (kW) Realizati on Rate	Energy (kWh) Realizati on Rate	Energy (Dth) Realizati on Rate	Verifie d Gross Gen kW	Verified Gross Gen kWh	Verified Gross Dth	Elec Demand NTG	Elec Energy NTG	Gas NTG	Verifie d Net Gen kW	Verified Net Gen kWh
Business Segment																
Commercial Refrigeration	Prescriptive and Custom	567	5,621,042	1,433.2	100.0%	100.0%	100.0%	100.0%	567	5,621,042	1,433	96.9%	98.4%	100.0%	550	5,532,444
	Prescriptive	137	550,191	N/A	100.0%	100.0%	100.0%	N/A	137	550,191	N/A	87.0%	87.0%	N/A	119	478,667
Compressed Air Efficiency	Studies	103	839,118	N/A	100.0%	100.0%	100.0%	N/A	103	839,118	N/A	87.0%	87.0%	N/A	90	730,032
	Custom	267	2,277,440	N/A	100.0%	100.0%	100.0%	N/A	267	2,277,440	N/A	87.0%	87.0%	N/A	232	1,981,372
Computer Efficiency	Prescriptive	1,463	10,786,994	N/A	100.0%	100.0%	100.0%	N/A	1,463	10,786,994	N/A	68.0%	68.0%	N/A	1,065	7,850,285
Cooling Efficiency	Prescriptive	1,682	4,709,376	N/A	100.0%	100.0%	100.0%	N/A	1,682	4,709,376	N/A	80.0%	80.0%	N/A	1,345	3,768,100
•	Custom	126	249,094	N/A	100.0%	100.0%	100.0%	N/A	126	249,094	N/A	87.0%	87.0%	N/A	109	216,712
Custom Efficiency	Custom	549	4,496,832	17,309.4	100.0%	100.0%	100.0%	100.0%	549	4,496,832	17,309	87.0%	87.0%	93.0%	478	3,912,244
Data Center Efficiency	Prescriptive and Custom	839	12,610,640	N/A	100.0%	100.0%	100.0%	N/A	839	12,610,640	N/A	88.3%	84.3%	N/A	762	10,872,596
Energy Management Systems	Custom	56	9,541,799	9,518.3	100.0%	100.0%	100.0%	100.0%	56	9,541,799	9,518	87.0%	87.0%	93.0%	49	8,301,365
Heating Efficiency	Prescriptive	N/A	N/A	19,964.6	100.0%	N/A	N/A	100.0%	N/A	N/A	19,965	N/A	N/A	86.0%	N/A	N/A
Lighting Efficiency	Prescriptive	8,657	48,716,717	N/A	100.0%	96.8%	98.28%	N/A	8,383	47,878,789	N/A	84.0%	84.0%	N/A	7,042	40,218,183
Lighting Efficiency	Custom	5,381	32,620,933	N/A	100.0%	100.0%	100.0%	N/A	5,381	32,620,933	N/A	96.0%	96.0%	N/A	5,166	31,316,095
Motor and Drive Efficiency	Prescriptive and Custom	3,481	21,921,828	N/A	100.0%	100.0%	100.0%	N/A	3,481	21,921,828	N/A	65.0%	65.0%	N/A	2,262	14,249,188
Wotor and Drive Efficiency	EC Motors, Motor Controllers	7	64,673	N/A	100.0%	100.0%	100.0%	N/A	7	64,673	N/A	65.0%	65.0%	N/A	7	61,439
New Construction	Energy Efficient Buildings	2,258	7,223,044	20,460.3	100.0%	100.0%	100.0%	100.0%	2,258	7,223,044	20,460	93.0%	93.0%	97.0%	2,100	6,717,431
New Construction	Energy Design Assistance	6,837	29,539,222	121,504.1	100.0%	100.0%	100.0%	100.0%	6,837	29,539,222	121,504	92.8%	92.8%	99.0%	6,344	27,416,708
Process Efficiency	Prescriptive and Custom	3,809	28,929,682	N/A	100.0%	100.0%	100.0%	N/A	3,809	28,929,682	N/A	90.0%	90.0%	N/A	3,420	26,002,866
Recommissioning	Custom	339	5,729,986	1,334.0	100.0%	100.0%	100.0%	100.0%	339	5,729,986	1,334	90.0%	90.0%	90.0%	305	5,156,987
G	Prescriptive Lighting	8	2,660	N/A	100.0%	99.4%	99.4%	N/A	8	2,644	N/A	97.0%	97.0%	N/A	7	21,271
Segment Efficiency	Prescriptive Motors	11	86,506	N/A	100.0%	99.9%	99.9%	N/A	11	86,419	N/A	97.0%	97.0%	N/A	11	83,911
	Custom - Lighting	6	13,015	0.0	100.0%	100.0%	100.0%	100.0%	6	13,015	0	97.0%	97.0%	94.0%	6	12,625
Self-Directed Custom Efficiency	Custom	557	2,653,872	N/A	100.0%	100.0%	100.0%	N/A	557	2,653,872	N/A	90.6%	90.6%	N/A	507	2,414,247
Carall Dusiness Liebtic	Prescriptive	1,638	8,302,281	N/A	100.0%	98.8%	99.0%	N/A	1,619	8,218,323	N/A	100.0%	100.0%	N/A	1,619	8,218,428
Small Business Lighting	Custom	612	3,549,770	N/A	100.0%	100.0%	100.0%	N/A	612	3,549,770	N/A	96.0%	96.0%	N/A	588	3,407,779
Standard Offer	Custom	450	2,235,455	112.2	100.0%	100.0%	100.0%	100.0%	450	2,235,455	112	87.6%	87.6%	93.0%	394	1,958,258
Busin	ess Segment Total	39,842	243,272,168	191,636.1	100.0%	99.3%	99.6%	100.0%	39,549	242,350,180	191,636	87.4%	87.0%	96.4%	34,577	210,899,234

Table 17f: 2014 (TOTAL) Residential Segment and Low-Income Segment Installation Rates, Realization Rates, and Final Net, Verified Savings by Program Component

2014 Products	End-Use/Measure Type	Gross Peak Gen kW	Gross Gen kWh	Gross Dth	Installat ion Rate	Demand (kW) Realizati on Rate	Energy (kWh) Realizati on Rate	Energy (Dth) Realizati on Rate	Verifie d Gross Gen kW	Verified Gross Gen kWh	Verified Gross Dth	Elec Demand NTG	Elec Energy NTG	Gas NTG	Verifi ed Net Gen kW	Verified Net Gen kWh
Residential Segment																
ENERGY STAR New Homes		1,076	2,374,806	105,949	100.0%	100.0%	100.0%	100.0%	1,076	2,374,806	105,949	92.0%	92.0%	92.12%	990	2,184,82
Evaporative Cooling Rebate		7,156	4,488,425	N/A	100.0%	100.0%	100.0%	N/A	7,156	4,488,425	N/A	69.2%	68.8%	N/A	4,785	2,987,26
Heating System Rebate		135	1,650,592	57,223	100.0%	100.0%	100.0%	100.0%	135	1,650,592	57,223	77.0%	77.0%	77.0%	127	1,551,55
High Efficiency Air Conditioning	Equipment, Quality Install, Trade-In	4,865	3,707,125	N/A	100.0%	100.0%	100.0%	N/A	4,865	3,707,125	N/A	68.0%	68.0%	N/A	3,143	2,423,56
	GSHP	20	59,767	N/A	100.0%	100.0%	100.0%	N/A	20	59,767	N/A	100.0%	100.0%	N/A	20	59,76
Home Lighting & Describe	CFL	17,906	131,953,846	N/A	99.0%	100.0%	100.0%	N/A	17,727	130,634,308	N/A	70.0%	70.0%	N/A	13,766	102,356,53
Home Lighting & Recycling	LED	2,996	21,153,014	N/A	99.0%	100.0%	100.0%	N/A	2,966	20,941,484	N/A	100.0%	100.0%	N/A	2,956	20,907,11
Home Performance w/ ENERGY ST.	AR	178	398,066	16,190	100.0%	100.0%	100.0%	100.0%	178	398,066	16,190	94.0%	94.0%	94.0%	167	374,18
Insulation Rebate		147	168,193	18,046	100.0%	97.8%	97.0%	105.7%	144	163,173	19,076	89.0%	89.0%	89.0%	128	145,20
Pool Pumps		83	230,145	N/A	100.0%	100.0%	100.0%	N/A	83	230,145	N/A	80.0%	80.0%	N/A	67	184,11
Refrigerator Recycling		937	8,214,420	N/A	100.0%	100.0%	100.0%	N/A	937	8,214,420	N/A	58.2%	58.2%	N/A	539	4,723,83
	CFL	635	5,512,859	0	54.5%	100.0%	100.0%	N/A	346	3,002,854	N/A	100.0%	100.0%	N/A	346	3,003,03
	LED	156	1,352,759	0	57.3%	100.0%	100.0%	N/A	89	775,131	N/A	100.0%	100.0%	N/A	89	775,13
School Education Kits	Showerhead	0	1,939,999	56,656	45.6%	100.0%	100.0%	100.0%	0	884,640	25,835	100.0%	100.0%	100.0%	0	884,64
	Kitchen Aerator	0	240,194	7,014	38.3%	100.0%	100.0%	100.0%	0	91,994	2,686	100.0%	100.0%	100.0%	0	91,99
	Bathroom Aerator	0	410,385	12,028	38.1%	100.0%	100.0%	100.0%	0	156,357	4,583	100.0%	100.0%	100.0%	0	156,35
Water Heating Rebate		17	148,757	7,155	100.0%	100.0%	100.0%	100.0%	17	148,757	7,155	100.0%	100.0%	90.0%	17	148,75
	Showerhead	0	1,259,243	50,317	68.0%	100.0%	100.0%	100.0%	0	856,285	34,215	99.0%	99.0%	99.0%	0	847,70
Energy Efficient Showerheads	Kitchen Aerator	0	156,804	6,336	53.0%	100.0%	100.0%	100.0%	0	83,106	3,358	99.0%	99.0%	99.0%	0	82,27
	Bath Aerator	0	267,303	9,503	55.0%	100.0%	100.0%	100.0%	0	147,017	5,227	99.0%	99.0%	99.0%	0	145,54
Energ	y Efficiency Subtotal	36,306	185,686,702	346,417.0	98.4%	100.0%	100.0%	100.3%	35,738	179,008,451	281,497	75.9%	80.5%	90.8%	27,139	144,033,40
Saver's Switch	•	11,172	209,763	N/A	100.0%	100.0%	100.0%	N/A	11,172	209,763	N/A	100.0%	100.0%	N/A	11,172	209,76
Residential Segment Tot	tal (w/o Low-Income)	47,478	185,896,465	346,417.0	98.8%	100.0%	100.0%	100.3%	46,910	179,218,214	281,497	81.7%	80.5%	90.8%	38,311	144,243,16
I am In a sur Camana																
Low-Income Segment	A	0	04.111	2 002 5	47.00/	100.00/	100.00/	100.00/	0	44 222	1.020	100.00/	100.00/	100.00/	0	44.20
Farmer Continue IV	Aerator	125	94,111	3,893.5	47.0%	100.0%	100.0%	100.0%	0	44,232	1,830	100.0%	100.0%	100.0%	0	44,23
Energy Savings Kits	CFL	135	1,194,027	N/A 11,680.5	82.0% 59.0%	100.0% 100.0%	100.0%	N/A 100.0%	111	979,102 159,635	N/A 6,891	100.0%	100.0%	N/A 100.0%	111	979,10 159,63
Multi Family Weath minuties	Showerhead	320	270,568				100.0%		320			100.0%	100.0%	1	320	
Multi-Family Weatherization Non-Profit Weatherization		320 171	1,933,055 1,342,438	10,715.8 3.699.5	100.0% 100.0%	100.0% 100.0%	100.0% 100.0%	100.0% 100.0%	171	1,933,055 1,342,438	10,716 3,700	100.0%	100.0%	100.0%	171	1,933,05 1,342,43
		268	,- ,	- ,	100.0%	100.0%	100.0%	100.0%	268	,- ,		100.0%	100.0%	100.0%	268	
Single-Family Weatherization		268 894	2,349,378 7,183,576	43,551.6 73,540.9	97.3%	100.0%	100.0%	100.0%	869	2,349,378 6,807,840	51,748 74,884	100.0%	100.0%	100.0%	869	2,349,37 6,807,8 4
Low-Income Segment Total		894	/,183,5/6	/3,540.9	97.3%	100.0%	100.0%	100.0%	809	0,807,840	/4,884	100.0%	100.0%	100.0%	809	0,807,84
Business Energy Feedback Pilot		0	1,857,475	0.0	100.0%	100.0%	100.0%	100.0%	0	1,857,475	0	100.0%	100.0%	100.0%	0	1,857,47
Residential Energy Feedback Pilot		7,200	27,807,492	54,542.7	100.0%	100.0%	100.0%	100.0%	7,200	27,807,492	91,789	100.0%	100.0%	100.0%	7,200	27,807,49
Mutifamily Building Pilot		0	0	0.0	100.0%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	
Smart Thermostat Pilot		0	0	0.0	100.0%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	
	2014 TOTAL	95,415	466,017,176	666,136.7	99.4%	99.7%	99.8%	100.2%	94,528	458,041,201	639,807	85.6%	85.5%	94.9%	80,957	391,615,20

Cost-Effectiveness

Cost-effectiveness ("cost-benefit") analyses represent the ratio of a product'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, product, 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 evaluating the cost-effectiveness of DSM programs. The MTRC test takes into account system and other benefits, utility and participant costs, as well as environmental adders. These analyses are performed in a multi-step process that takes into account, among other factors, the:

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

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

The Company is reporting 2014 electric and natural gas portfolio MTRC test ratio results of 1.89 and 1.76, respectively. These results are shown in <u>Table 18</u> and <u>Table 19</u>. The portfolio results are based upon electric net economic benefits of \$158.6 million and natural gas net economic benefits \$24.6 million. The Company has provided the cost-effectiveness results (MTRC test ratios) for electric and gas products in the following tables within this report:²⁴

- Business Program: Tables 13a (electric) and 13b (gas)
- Residential Program: Tables 14a (electric) and 14b (gas)
- Low-Income Program: Tables 15a (electric) and 15b (gas)
- <u>Indirect Program</u>: Tables 16a (electric) and 16b (gas)

²⁴ C.R.S. 40-3.2-104(6)(d) requires that the Company submit an annual report to the Commission that estimates the cost-effectiveness and net economic benefits of DSM programs, among other documentation.

Table 18: 2014 Electric DSM Portfolio Cost-Benefit Analysis (CBA)

DSM PORTFOLIO - ELEC	CTRIC				2014 ELECT	TRIC	ACTUAL
2014 Net Present Cost Benefit Summ:	ary Analysis For	All Participants			Input Summary and Totals		
			Rate	Modified	Program Inputs per Customer kW		
	Participant	Utility	Impact	TRC	Lifetime (Weighted on Generator kWh)	A	14 years
	Test	Test	Test	Test	Annual Hours	В	8760
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Gross Customer kW	С	1 kW
Benefits					Generator Peak Coincidence Factor	D	25.63%
					Gross Load Factor at Customer	E	14.37%
Avoided Revenue Requirements					Net-to-Gross (Energy)	F	86.1%
Generation Capacity	N/A	\$79,318,389	\$79,318,389	\$79,318,389	Net-to-Gross (Demand)	G	86.0%
Transmission & Distribution	N/A	\$17,662,559	\$17,662,559	\$17,662,559	Transmission Loss Factor (Energy)	H	7.035%
Marginal Energy	N/A	\$151,091,633	\$151,091,633	\$151,091,633	Transmission Loss Factor (Demand)	I	7.502%
Avoided Emissions (CO2)	N/A	N/A	N/A	\$ 0	Installation Rate (Energy)	J	97.7%
Subtotal				\$248,072,581	Installation Rate (Demand)	K	98.7%
Non-Energy Benefits Adder (10.	.2%)			\$25,327,444	MTRC Net Benefit (Cost)	L	\$461
Subtotal	N/A	\$248,072,581	\$248,072,581	\$273,400,025	MTRC Non-Energy Benefit Adder	M	\$74
					Net coincident kW Saved at Generator	(GxCxK)xD/(1-I)	0.2353 kW
Other Benefits					Gross Annual kWh Saved at Customer	(B x E x C)	1,258 kWh
Bill Reduction - Electric	\$355,888,699	N/A	N/A	N/A	Net Annual kWh Saved at Customer	(Fx(BxExCxJ))	1,058 kWh
Incentives	\$48,244,804	N/A	N/A	\$48,244,804	Net Annual kWh Saved at Generator	(Fx(BxExCxJ))/(1-H)	1,138 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$ 0			
Incremental O&M Savings	\$73,000,157	N/A	N/A	\$16,003,669	Program Summary per Participant		
Subtotal	\$477,133,661	N/A	N/A	\$64,248,473	Gross kW Saved at Customer	P	0.57 kW
					Net coincident kW Saved at Generator	(G x P x K) x D / (1-I)	0.13 kW
Total Benefits	\$477,133,661	\$248,072,581	\$248,072,581	\$337,648,498	Gross Annual kWh Saved at Customer	(B x E x P)	720 kWb
Costs					Net Annual kWh Saved at Customer	(Fx(BxExPxJ))	605 kWh
					Net Annual kWh Saved at Generator	(Fx(BxExPxJ))/(1-H)	651 kWh
Utility Project Costs							
Program Planning & Design	N/A	\$351,025	\$351,025	\$351,025	Program Summary All Participants		
Administration & Program Deliv	N/A	\$20,624,957	\$20,624,957	\$20,624,957	Total Participants	Q	501,795
Advertising/Promotion/Custom	N/A	\$6,368,120	\$6,368,120	\$6,368,120	Total Budget	R	\$76,962,284
Participant Rebates and Incentiv	N/A	\$48,244,804	\$48,244,804	\$48,244,804	Gross kW Saved at Customer	(Q x P)	344,141 kW
Equipment & Installation	N/A	\$154	\$154	\$154	Net coincident kW Saved at Generator	((GxPxK)xD/(1-I))xQ	80,957 kW
Measurement and Verification	N/A	\$1,373,223	\$1,373,223	\$1,373,223	Gross Annual kWh Saved at Customer	(B x E x P) x Q	433,093,784 kWb
Subtotal	N/A	\$76,962,284	\$76,962,284	\$76,962,284	Gross Installed Annual kWh Saved at Custon	ne (BxExPxJ)xQ	422,937,880 kWh
					Net Annual kWh Saved at Customer	(Fx(BxExPxJ))xQ	364,065,890 kWh
Utility Revenue Reduction					Net Annual kWh Saved at Generator	((Fx(BxExPxJ))/(1-H))xQ	391,615,207 kWh
Revenue Reduction - Electric	N/A	N/A	\$295,069,001	N/A	TRC Net Benefits with Adder	(QxPxL)	\$158,681,084
Subtotal	N/A	N/A	\$295,069,001	N/A	TRC Net Benefits without Adder	(QxPx(L-M))	\$133,353,640
Participant Costs					Utility Program Cost per kWh Lifetime		\$0.0142
Incremental Capital Costs	\$111,891,503	N/A	N/A	\$102,005,131	Utility Program Cost per kW at Gen		\$951
Incremental O&M Costs	\$0	N/A	N/A	\$0			• • • • • • • • • • • • • • • • • • • •
Subtotal	\$111,891,503	N/A	N/A	\$102,005,131			
Total Costs	\$111,891,503	\$76,962,284	\$372,031,284	\$178,967,414			
Net Benefit (Cost)	\$365,242,158	\$171,110,297	(\$123,958,703)	\$158,681,084			
Benefit/Cost Ratio	4 26	3 22	0.67	1.89			

Table 19: 2014 Natural Gas DSM Portfolio Cost-Benefit Analysis (CBA)

2014

Input Summary and Totals
Program Assumptions:
Lifetime (Weighted on Dth)

Net-to-Gross (Weighted on Dth)

Install Rate (Weighted on Dth)

Average Net Dth/Yr Saved

Utility Costs per Net Dth/Yr

Net Benefit (Cost) per Gross Dth/Yr

Total MTRC Net Benefits with Adder

Total MTRC Net Benefits without Adder

Utility Program Cost per Net Dth Lifetime

Non-Energy Benefits Adder per Gross Dth/Yr

Total Dth/Yr Saved

Annual Dth/\$M Total Utility Budget

Program Totals:

Participants

GAS

Α

В

С

D

Ε

F

G

Η

(GxF)

(FxH)

(G/A)

 $(H-I) \times F$

	ry Analysis For A	All Participants		
			Rate	Modified
	Participant	Utility	Impact	TRC
	Test	Test	Test	Test
	(\$Total)	(\$Total)	(\$Total)	(\$Total)
Benefits				
voided Revenue Requirements				
Commodity Cost Reduction	N/A	\$30,409,569	\$30,409,569	\$30,409,569
Variable O&M Savings	N/A	\$189,298	\$189,298	\$189,298
Demand Savings	N/A	\$2,884,716	\$2,884,716	\$2,884,716
Subtotal				\$33,483,584
Emissions Non-Energy Benefits A	Adder (7.8%)			\$2,605,584
ubtotal	N/A	\$33,483,584	\$33,483,584	\$36,089,168
Other Benefits				
Bill Reduction - Gas	\$47,170,495	N/A	N/A	N/A
Incentives	\$8,392,324	N/A	N/A	\$8,392,324
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$22,888,906	N/A	N/A	\$12,735,894
ubtotal	\$78,451,725	N/A	N/A	\$21,128,218
Total Benefits	\$78,451,725	\$33,483,584	\$33,483,584	\$57,217,386
Costs				
Utility Project Costs	27/4	6100.005	\$100.005	£100.00E
Program Planning & Design	N/A	\$100,825	\$100,825	\$100,825
Administration & Program Delix	N/A	\$2,765,982	\$2,765,982	\$2,765,982
Advertising/Promotion/Custom Participant Rebates and Incentive	N/A N/A	\$330,982	\$330,982 \$8,392,324	\$330,982
_		\$8,392,324		\$8,392,324
Equipment & Installation	N/A	\$0	\$0	\$0
Equipment & Installation Measurement and Verification				
Equipment & Installation Measurement and Verification Subtotal	N/A N/A	\$0 \$914,905	\$0 \$914,905	\$0 \$914,905
Equipment & Installation Measusement and Verification Subtotal Utility Revenue Reduction	N/A N/A N/A	\$0 \$914,905 \$12,505,018	\$0 \$914,905 \$12,505,018	\$0 \$914,905 \$12,505,018
Equipment & Installation Measurement and Verification Subtotal Utility Revenue Reduction Revenue Reduction - Gas	N/A N/A	\$0 \$914,905	\$0 \$914,905	\$0 \$914,905
Equipment & Installation Measurement and Verification subtotal Utility Revenue Reduction Revenue Reduction - Gas	N/A N/A N/A	\$0 \$914,905 \$12,505,018 N/A	\$0 \$914,905 \$12,505,018 \$40,981,411	\$0 \$914,905 \$12,505,018
Equipment & Installation Measurement and Verification subtotal Utility Revenue Reduction Revenue Reduction - Gas subtotal Participant Costs	N/A N/A N/A	\$0 \$914,905 \$12,505,018 N/A	\$0 \$914,905 \$12,505,018 \$40,981,411	\$0 \$914,905 \$12,505,018
Equipment & Installation Measurement and Verification ubtotal Utility Revenue Reduction Revenue Reduction - Gas ubtotal Participant Costs Incremental Capital Costs	N/A N/A N/A N/A	\$0 \$914,905 \$12,505,018 N/A N/A	\$0 \$914,905 \$12,505,018 \$40,981,411 \$40,981,411	\$0 \$914,905 \$12,505,018 N/A N/A
Equipment & Installation Measurement and Verification Subtotal Utility Revenue Reduction Revenue Reduction - Gas Subtotal Participant Costs Incremental Capital Costs Incremental O&M Costs	N/A N/A N/A N/A N/A \$21,376,229	\$0 \$914,905 \$12,505,018 N/A N/A	\$0 \$914,905 \$12,505,018 \$40,981,411 \$40,981,411	\$0 \$914,905 \$12,505,018 N/A N/A \$20,025,395
Equipment & Installation Measurement and Verification Subtotal Utility Revenue Reduction Revenue Reduction - Gas Subtotal Participant Costs Incremental Capital Costs Incremental O&M Costs Subtotal	N/A N/A N/A N/A N/A N/A \$21,376,229 \$0	\$0 \$914,905 \$12,505,018 N/A N/A N/A N/A	\$0 \$914,905 \$12,505,018 \$40,981,411 \$40,981,411 N/A N/A	\$0 \$914,905 \$12,505,018 N/A N/A \$20,025,395 \$0
Equipment & Installation Measurement and Verification Subtotal Utility Revenue Reduction Revenue Reduction - Gas Subtotal Participant Costs Incremental Capital Costs Incremental O&M Costs Subtotal Total Costs	N/A N/A N/A N/A N/A N/A \$21,376,229 \$0 \$21,376,229	\$0 \$914,905 \$12,505,018 N/A N/A N/A N/A N/A \$12,505,018	\$0 \$914,905 \$12,505,018 \$40,981,411 \$40,981,411 N/A N/A N/A \$53,486,429	\$0 \$914,905 \$12,505,018 N/A N/A \$20,025,395 \$0 \$20,025,395
Equipment & Installation Measurement and Verification subtotal Utility Revenue Reduction Revenue Reduction - Gas subtotal Participant Costs Incremental Capital Costs Incremental O&M Costs	N/A N/A N/A N/A N/A \$21,376,229 \$0 \$21,376,229	\$0 \$914,905 \$12,505,018 N/A N/A N/A N/A	\$0 \$914,905 \$12,505,018 \$40,981,411 \$40,981,411 N/A N/A	\$0 \$914,905 \$12,505,018 N/A N/A \$20,025,395 \$0 \$20,025,395

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

ACTUAL

14.83 years

94.27%

92.7%

185,823

606,995

\$20.60

\$40.67

\$12,505,018

\$24,686,973

\$22,081,389

\$1.39

\$4.29 48,540

3.27

Appendix A: Avoided Cost Assumptions

The following avoided costs have been updated and included with the 2014 DSM Annual Status Report as ordered in Paragraph 58 of Decision No. C08-0769 (Proceeding No. 07A-420E). The Order states:

"...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."

The avoided costs are the Company's estimates as filed in the 2013 DSM Plan (Proceeding No. 11A-631EG) and the 2014 DSM Plan (Proceeding No. 13A-0773EG), which have also been used in the cost-benefit analysis of 2014 DSM Annual Status Report.

A. 2013 (Pre-5.1.2014) Electric Programs

In order to determine the cost-effectiveness of its electric energy efficiency and load management programs from January 1, 2014 through April 30, 2014, Public Service must first calculate the avoided generation, transmission, distribution, and marginal energy costs these programs avoid. Below are tables showing the avoided cost assumptions used for those calculations.

1. Estimated Annual Avoided Generation Capacity Costs

(Source: Public Service Resource Planning)

Capacity costs reflect current generic capacity cost estimates used in the latest Renewable Energy Standard Adjustment (RESA) filings for the two types of avoided electric generation – a gas-fired combustion turbine (CT) and a gas-fire combined-cycle plant (CC).

	CT	CC		CT	CC
Year	Gen Capacity \$/kW-mo	Gen Capacity \$/kW-mo	Year	Gen Capacity \$/kW-mo	Gen Capacity \$/kW-mo
2013	\$12.51	\$14.33	2023	\$15.07	\$17.04
2014	\$12.75	\$14.58	2024	\$15.35	\$17.34
2015	\$12.99	\$14.83	2025	\$15.64	\$17.65
2016	\$13.23	\$15.09	2026	\$15.93	\$17.96
2017	\$13.48	\$15.36	2027	\$16.23	\$18.27
2018	\$13.74	\$15.63	2028	\$16.53	\$18.59
2019	\$13.99	\$15.90	2029	\$16.84	\$18.92
2020	\$14.26	\$16.18	2030	\$17.16	\$19.25
2021	\$14.52	\$16.46	2031	\$17.48	\$19.59
2022	\$14.79	\$16.75	2032	\$17.80	\$19.93

2. Estimated Annual Avoided Transmission and Distribution Capacity Costs

(Source: Public Service Resource Planning)

A review by Resource Planning determined that \$30.71/kW-yr is a good estimate of the benefit of Transmission and Distribution capacity for 2013. This value is escalated at the current 2.36% escalation rate based on the Company's corporate policy adopted in May 2011.

Year	\$/kW-yr
2013	\$30.71
2013+	Escalated at 2.36%

3. Estimated Annual Avoided Marginal Energy Costs

(Source: Public Service Resource Planning and Quantitative Risk Services)

Avoided marginal energy costs reflect the assumed gas forecast and heat rates used in the latest RESA filings for the two types of avoided electric generation – a gas-fired combustion turbine (CT) and a gas-fire combined-cycle plant (CC).

	СТ	CC		CT	CC
Year	Marginal Energy \$/MWh	Marginal Energy \$/MWh	Year	Marginal Energy \$/MWh	Marginal Energy \$/MWh
2013	\$71.03	\$42.28	2023	\$108.61	\$66.20
2014	\$75.43	\$45.13	2024	\$112.98	\$68.98
2015	\$81.09	\$48.83	2025	\$115.79	\$70.70
2016	\$85.08	\$51.39	2026	\$115.56	\$70.33
2017	\$86.76	\$52.38	2027	\$116.91	\$71.04
2018	\$89.93	\$54.37	2028	\$120.27	\$73.12
2019	\$93.42	\$56.57	2029	\$123.96	\$75.41
2020	\$96.60	\$58.56	2030	\$127.97	\$77.92
2021	\$100.00	\$60.70	2031	\$130.95	\$79.71
2022	\$104.14	\$63.34	2032	\$133.93	\$81.51

4. Estimated Annual Avoided Emissions Costs (includes CO₂)

(Source: Public Service Resource Planning)

In the latest RESA filings, the base-case assumed zero cost for CO₂ emissions. For this reason, this value is set to \$0 for all future years.

B. 2014 (Post-5.1.2014) Electric Programs

In order to determine the cost-effectiveness of its electric energy efficiency and load management programs from May 1, 2014 through December 31, 2014, Public Service must first calculate the avoided generation, transmission, distribution, and marginal energy costs these programs avoid. Below are tables showing the avoided cost assumptions used in this report. Below are tables showing the avoided cost assumptions used for those calculations.

1. Estimated Annual Avoided Generation Capacity Costs

(Source: Public Service Resource Planning)

Capacity costs reflect current generic capacity cost estimates used in Phase II of the Public Service Company of Colorado's 2011 Electric Resource Plan (Proceeding No. 11A-869E) for the two types of avoided electric generation – a gas-fired combustion turbine (CT) and a gas-fire combined-cycle plant (CC).

	CT	CC		CT	CC
Year	Gen Capacity \$/kW-mo	Gen Capacity \$/kW-mo	Year	Gen Capacity \$/kW-mo	Gen Capacity \$/kW-mo
2014	\$7.41	\$9.06	2024	\$9.41	\$11.28
2015	\$7.59	\$9.26	2025	\$9.64	\$11.53
2016	\$7.78	\$9.47	2026	\$9.87	\$11.79
2017	\$7.96	\$9.68	2027	\$10.11	\$12.05
2018	\$8.16	\$9.89	2028	\$10.35	\$12.32
2019	\$8.36	\$10.11	2029	\$10.59	\$12.59
2020	\$8.56	\$10.33	2030	\$10.85	\$12.87
2021	\$8.76	\$10.56	2031	\$11.11	\$13.16
2022	\$8.98	\$10.80	2032	\$11.37	\$13.45
2023	\$9.19	\$11.04	2033	\$11.64	\$13.75

2. Estimated Annual Avoided Transmission and Distribution Capacity Costs

(Source: Public Service Resource Planning)

A 2014 start value is based on the Phase I of the Public Service Company of Colorado's 2011 Electric Resource Plan (Proceeding No. 11A-869E) in which an assumed Transmission upgrade of \$28.40/kW-yr was applied to the cost of a CC. This value is a levelized value and is not escalated.

3. Estimated Annual Avoided Marginal Energy Costs

(Source: Public Service Resource Planning and Quantitative Risk Services)

Avoided marginal energy costs reflect a March 2013 assumed gas forecast and heat rates used in Phase II of the Public Service Company of Colorado's 2011 Electric Resource Plan (Proceeding No. 11A-869E) for the two types of avoided electric generation – a CT and a CC.

	CT	CC		CT	CC
Year	Marginal Energy \$/MWh	Marginal Energy \$/MWh	Year	Marginal Energy \$/MWh	Marginal Energy \$/MWh
2014	\$60.09	\$35.58	2024	\$91.41	\$55.69
2015	\$61.69	\$36.57	2025	\$94.15	\$57.42
2016	\$63.28	\$37.54	2026	\$96.66	\$59.00
2017	\$66.04	\$39.31	2027	\$98.67	\$60.24
2018	\$69.86	\$41.79	2028	\$100.67	\$61.47
2019	\$74.11	\$44.55	2029	\$103.37	\$63.17
2020	\$77.92	\$47.02	2030	\$105.63	\$64.58

2021	\$81.01	\$49.00	2031	\$107.50	\$65.71
2022	\$84.03	\$50.93	2032	\$109.67	\$67.04
2023	\$88.83	\$54.06	2033	\$112.08	\$68.54

4. Estimated Annual Avoided Emissions Costs (includes CO₂)

(Source: Public Service Resource Planning)

In the Public Services Company of Colorado's 2012 Renewable Energy Standard Compliance Plan (Proceeding No. 11A-418E), the base-case assumed zero cost for CO2 emissions. For this reason, this value is set to \$0 for all future years.

C. <u>2013 (Pre-5.1.2014) Natural Gas Programs</u>

In order to determine the cost-effectiveness of its natural gas programs from January 1, 2014 through April 30, 2014, Public Service must calculate the avoided commodity cost of gas, avoided capacity costs and any avoided variable O&M costs associated with the gas energy efficiency savings. Below are tables showing the avoided cost assumptions used for those calculations.

1. Estimated Commodity Cost of Gas

(Source: Public Service Gas Resource Planning)

The following table outlines the current gas price forecast as of April 2011 using a market snapshot for short-term prices and a quantitative average of projections from well-known forecasting services for the long-term forecast prices.

Year	\$/Dth	Year	\$/Dth
2013	\$5.30	2023	\$8.49
2014	\$5.66	2024	\$8.87
2015	\$6.14	2025	\$9.11
2016	\$6.50	2026	\$9.07
2017	\$6.64	2027	\$9.14
2018	\$6.90	2028	\$9.42
2019	\$7.19	2029	\$9.73
2020	\$7.45	2030	\$10.07
2021	\$7.75	2031	\$10.31
2022	\$8.11	2032	\$10.55

2. Estimated Avoided Variable O&M Costs

(Source: Public Service Pricing and Planning)

The Company used the following value provided by our Pricing and Planning Department to determine variable O&M costs avoided with a reduction in gas usage.

ľ	Year	\$/Dth
ĺ	2013-2032	\$0.05

3. 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 following annual avoided reservation costs was used to determine the cost of service to transport incremental gas supplies to the metropolitan Denver area. The Company uses the Colorado Interstate Gas (CIG) firm transportation rate to estimate this cost.

Year	\$/Dth
2013-2032	\$56.37

D. 2014 (Post-5.1.2014) Natural Gas Programs

In order to determine the cost-effectiveness of its electric energy efficiency and load management programs from May 1, 2014 through December 31, 2014, Public Service must first calculate the avoided generation, transmission, distribution, and marginal energy costs these programs avoid. Below are tables showing the avoided cost assumptions used in this report. Below are tables showing the avoided cost assumptions used for those calculations.

1. Estimated Commodity Cost of Gas

(Source: Public Service Gas Resource Planning)

The following table outlines the current gas price forecast as of April 2013 using a market snapshot for short-term prices and a quantitative average of projections from well-known forecasting services for the long-term forecast prices.

Year	\$/Dth	Year	\$/Dth
2014	\$4.11	2024	\$6.84
2015	\$4.25	2025	\$7.07
2016	\$4.38	2026	\$7.28
2017	\$4.60	2027	\$7.45
2018	\$4.94	2028	\$7.62
2019	\$5.31	2029	\$7.85
2020	\$5.65	2030	\$8.04
2021	\$5.92	2031	\$8.18
2022	\$6.18	2032	\$8.36
2023	\$6.60	2033	\$8.56

2. Estimated Avoided Variable O&M Costs

(Source: Public Service Pricing and Planning)

The Company used the following value provided by the Company's Pricing and Planning department to determine variable O&M costs avoided with a reduction in gas usage.

Year	\$/Dth	
2014-2033	\$0.033	

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 following annual avoided reservation costs was used to determine the cost of service to transport incremental gas supplies to the metropolitan Denver area. The Company uses the CIG firm transportation rate to estimate this cost.

Year	\$/Dth	
2014-2033	\$56.37	

Appendix B: Achievements from Each Plan-Year

In Decision No. R13-1204-I at Paragraph 21 the Commission approved the Company's proposal to "illustrate the contribution and achievements of the interim extension of the 2013 DSM Plan and the 2014 DSM Plan on a separate and combined basis." The savings achievements from January 1, 2014 – April 30, 2014, which utilize assumptions from the 2013 DSM Plan, are shown in Table 20. The savings achievements from May 1, 2014 – December 31, 2014, which utilize assumptions from the 2014 DSM Plan, are shown in Table 21.

Table 20: 2014 Achievements, January – April

January - April 2014	Net Generator kW	Net Generator kWh	Net Annual Dtl Savings
Business Program	170	1 022 (22	20
Commercial Refrigeration Efficiency	170 125	1,823,623	29
Compressed Air Efficiency	309	821,027	
Computer Efficiency Cooling Efficiency	285	2,262,667 973,655	
Custom Efficiency	134	2,118,036	2,86
	445		2,00
Data Center Efficiency	445	5,585,913	1.01
Energy Management Systems	0	1,288,093	1,01
Heating Efficiency	2.707	15 207 200	6,20
Lighting Efficiency	2,787	15,287,209	
Motor & Drive Efficiency	1,172	7,638,501	15.76
New Construction	1,135	4,329,811	15,78
Process Efficiency	2,438	15,898,169	
Recommissioning	25	139,833	15
Segment Efficiency	24	115,094	
Self-Directed Custom Efficiency	0	0	
Small Business Lighting	488	2,555,928	
Standard Offer	76	267,470	5
Business Program Total	9,617	61,105,029	26,42
Residential Program			
ENERGY STAR New Homes	443	971,735	44,50
Evaporative Cooling Rebates	454	284,022	
Heating System Rebates	0	0	19,29
High Efficiency Air Conditioning	219	185,191	
Home Lighting & Recycling	8,655	68,762,802	
Home Performance with ENERGY STAR	80	147,566	7,17
Insulation	57	55,189	8,50
Pool Pump	9	26,054	0,51
Refrigerator Recycling	89	777,199	
School Education Kits	0	0	
Energy Efficient Showerhead	0	0	
Water Heater Rebate	7		2.69
		60,156	2,68
Residential Program Energy Efficiency Total Load Management Program - Residential Saver's Switch	10,013	71,269,914 19,771	82,22
Residential Program Total	10,604	71,289,685	82,22
Low-Income Program			
Energy Savings Kit	0	0	
Multi-Family Weatherization	0	0	
Non-Profit Energy Efficiency	0	0	
Single-Family Weatherization	15	147,910	8,19
Low-Income Program Total	15	147,910	8,19
Indirect Products & Services			
Education/Market Transformation			
Business Energy Analysis			
Community Energy Efficiency Planning Pilot			
Consumer Education - Business			<u> </u>
Consumer Education - Residential			
Energy Efficiency Financing			
Residential Home Energy Audit			
Education/Market Transformation Total			
Planning and Research			
DSM Planning & Administration			
Program Evaluations			
Measurement & Verification			
DSM Market Research			
DSM Product Development			
Energy Feedback Pilot	0	7,500,028	37,24
Energy Feedback Pilot - Business	0	7,500,028	31,52
In-Home Smart Device Pilot	U	0	
Electric Vehicle Charging Station Pilot			
Multifamily Building			
Smart Thermostat			ļ
Smart Thermostat - DR			
DSM Product Development Total	0	7,500,028	37,2
Planning and Research Total	0	7,500,028	37,2
Indirect Products & Services Total	0	7,500,028	37,24
DOPTEOLIO TOTAL	20.22	140 040 650	4710
PORTFOLIO TOTAL	20,236	140,042,652	154,0

Table 21: 2014 Achievements, May – December

May - December 2014	Net Generator kW	Net Generator kWh	Net Annual Dth Savings
Business Program	200	2 700 021	1 1 1 1 2
Commercial Refrigeration Efficiency Compressed Air Efficiency	380 317	3,708,821 2,369,044	1,142
Computer Efficiency	756	5,587,618	
Cooling Efficiency	1,170	3,011,157	
Custom Efficiency	344	1,794,208	13,233
Data Center Efficiency	317	5,286,683	
Energy Management Systems	43	7,013,272	7,580
Heating Efficiency	0.424	54.045.040	10,909
Lighting Efficiency Motor & Drive Efficiency	9,421 1.098	56,247,069 6,672,126	
New Construction	7,308	29,804,328	124,352
Process Efficiency	982	10,104,698	121,552
Recommissioning	280	5,017,154	1,046
Segment Efficiency	1	2,712	
Self-Directed Custom Efficiency	507	2,414,247	
Small Business Lighting	1,719	9,070,279	
Standard Offer	318	1,690,788	0
Business Program Total	24,960	149,794,205	158,262
Residential Program	5.47	1 213 096	52.066
ENERGY STAR New Homes Evaporative Cooling Rebates	547 4,331	1,213,086 2,703,241	52,966
Heating System Rebates	127	1,551,556	24,770
High Efficiency Air Conditioning	2,944	2,298,145	21,770
Home Lighting & Recycling	8,067	54,500,847	
Home Performance with ENERGY STAR	87	226,616	8,040
Insulation	71	90,012	8,411
Pool Pump	57	158,062	
Refrigerator Recycling	450	3,946,632	
School Education Kits	436	4,911,161	33,104
Energy Efficient Showerhead Water Heater Rebate	10	1,075,530	42,360
		88,601	3,759
Residential Program Energy Efficiency Total Load Management Program - Residential Saver's Switch	17,126 10,580	72,763,489 189,991	173,410
Residential Program Total	27,706	72,953,481	173,410
Low-Income Program			
Energy Savings Kit	111	1,182,969	8,721
Multi-Family Weatherization	320	1,933,055	10,716
Non-Profit Energy Efficiency	171	1,342,438	3,700
Single-Family Weatherization Low-Income Program Total	253 854	2,201,468 6,659,930	43,552 66,688
Indicat Badusta 9 Coming			
Indirect Products & Services Education/Market Transformation			
Business Energy Analysis			
Community Energy Efficiency Planning Pilot			
Consumer Education - Business			
Consumer Education - Residential			
Energy Efficiency Financing			
Residential Home Energy Audit			
Education/Market Transformation Total			
Planning and Research			
DSM Planning & Administration			
Program Evaluations			
Measurement & Verification			
DSM Market Research DSM Product Development			
Energy Feedback Pilot	7,200	20,307,464	54,543
Energy Feedback Pilot - Business	0	1,857,475	0,,549
In-Home Smart Device Pilot			
Electric Vehicle Charging Station Pilot			
Multifamily Building			
Smart Thermostat			
Smart Thermostat - DR		ac	
DSM Product Development Total	7,200	22,164,939	54,543
Planning and Research Total Indirect Products & Services Total	7,200 7,200	22,164,939 22,164,939	54,543 54,543
Mancet Frontes & Services Total	/,200	44,104,739	54,543
PORTFOLIO TOTAL	60,721	251,572,555	452,904