Xcel Energy®

Demand-Side Management Annual Status Report

Electric and Natural Gas

Public Service Company of Colorado

March 30, 2016/ Proceeding No. 14A-1057EG

2015

Xcel Energy®

RESPONSIBLE BY NATURE®

1800 Larimer Street
Denver, Colorado 80202

1-800-895-4999
xcelenergy.com

2015 Demand-Side Management Annual Status Report

Xcel Energy is making bold moves in Colorado, giving customers more options and the tools they need to make educated decisions about their electricity use. 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, produce and deliver additional power. The program performance has continued to grow, while the DSM portfolio still remains cost-effective.

This 2015 Demand-Side Management (DSM) Annual Status Report summarizes the natural gas and electric energy efficiency achievements made in 2015. This report also explores the challenges and lessons learned from a diverse and varied portfolio of programs and pilots 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.

Report Highlights:

- **The electric and natural gas DSM portfolios both reached their overall energy savings targets**. In 2015, PSCo's electric portfolio achieved energy savings at 104% of the prorated goal. At more than 406 GWh, the portfolio hit an all-time high in terms of electric energy savings. This was accomplished at 91% of the filed budget. The natural gas portfolio achieved 98% of the prorated goal at 98% of budget. A total of 160,991 tons of CO_2 were avoided in 2015 through the gas and electric DSM achievements.
- **Lighting programs continued to contribute to the majority of the electric energy savings achievements**. Lighting programs contributed over 50% of the energy savings realized in 2015. In terms of avoided emissions, the greatest contributors were Home Lighting & Recycling, New Construction, and Lighting Efficiency.
- **Timing of the 2015 DSM Plan kick-off impacted results.** The 2015 plan was approved August 1, 2015, and as a result the 2014 DSM Plan remained in place for the first seven months of 2015. This caused a delay in launch of some new measures and products included in the 2015 DSM Plan, which had an impact on achievements.
- **Programs that did not meet all expectations still offered customers a robust set of options for energy efficiency.** Some programs did not meet individual targets. Eleven products/pilots were not cost-effective in 2015, in many cases due to lower avoided costs.

Looking ahead, changing markets and building codes will have an effect on energy savings opportunities. The Company has launched several new pilots and services in recent years, more time in the market will determine whether customers take advantage of these new DSM program options, and how those levels of participation impact cost-effectiveness.

The achievements outlined in 2015 are a demonstration of Xcel Energy's environmental leadership and our commitment to managing 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.

2015 Demand-Side Management Annual Status Report

Table of Contents

Executive Summary 1

History of the Plan 2
High-Level Achievements 6
Summary of Program Changes via 60/90-Day Notice 10
RFP Administrative Costs for Third-Party Implementation 11
Program Achievements and Expenditures 12
Program Costs by Budget Category 22

Participation Analysis 31
Compliance 35
Financial Incentive Calculations 46

2015 Status Report

Business Program 50
Residential Program 61
Low-Income Program 71
Indirect Program 75
Demand Response Program 84
Evaluation, Measurement, and Verification: 2015 Results 88
Cost-Effectiveness 112

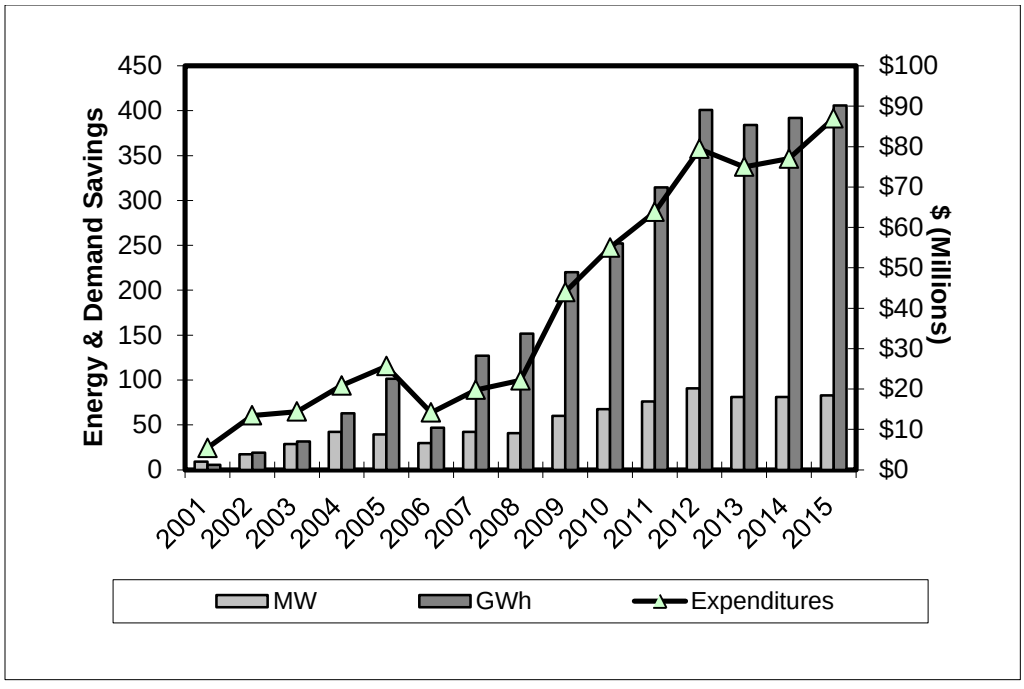
Appendix A: Avoided Cost Assumptions 115
Appendix B: Achievements from Each Plan-Year 121

Executive Summary

Public Service Company of Colorado ("Public Service" or the "Company") submits this combined electric and natural gas 2015 Colorado Demand-Side Management (DSM) Annual Status Report ("Status Report") to the Colorado Public Utilities Commission ("Commission") at the conclusion of 2015. In this filing, the Company will report on its electric and natural gas DSM achievements under the 2014 DSM Plan (Proceeding No. 13A-0773EG) from January 1, 2015 through July 31, 2015 and the 2015 DSM Plan (Proceeding No. 14A-1057EG) from August 1, 2015 through December 31, 2015.

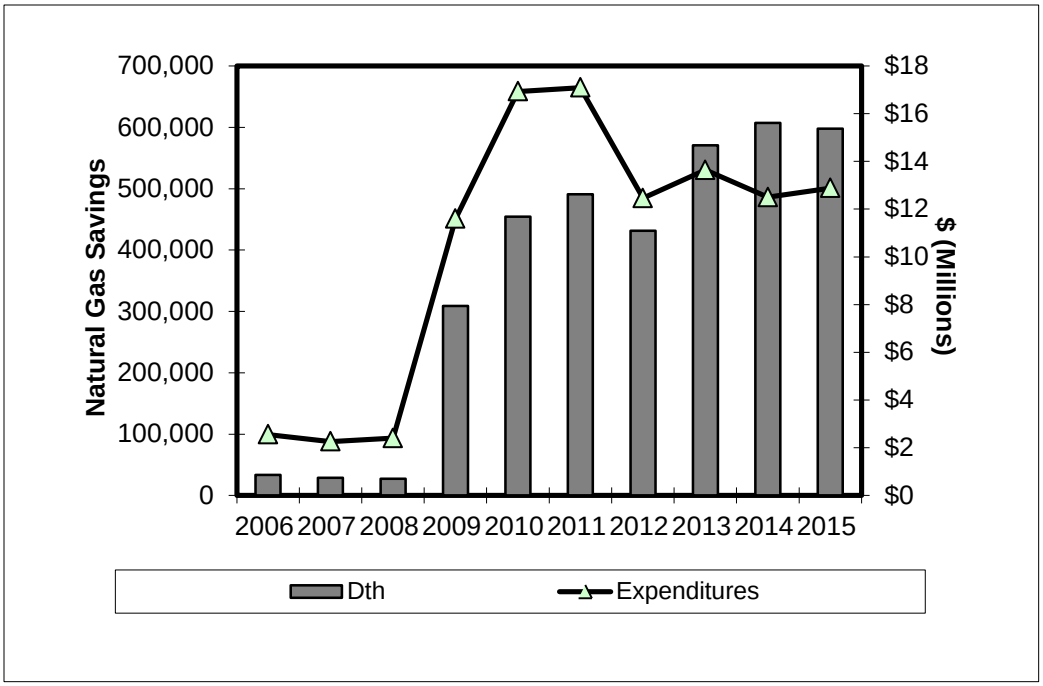
The electric savings of 405.7 GWh are a significant accomplishment equaling 104% of the prorated goal of 390.7 GWh. Natural gas savings of 598,015 Dth was 98% of the prorated goal of 608,244 Dth. To achieve these savings, the Company spent a total of $100 million ($74.7 million – electric energy efficiency, $12.4 million demand response, and $12.9 million – natural gas) on its electric and natural gas programs, less than the approved electric energy efficiency budget cap of $84.3 million,[1] less than the approved demand response budget of $13.7 million, and more than the minimum natural gas expenditure requirement of $12 million.[2] Below in Figure 1 and 2 are Public Service's historical achievements and expenditures for its electric and natural gas DSM Programs.

Figure 1: Historical Electric Program Savings and Expenditures



[1] Decision No. C14-0997 at Paragraph 5.
[2] Decision No. C14-0731 at Paragraph 69.

Figure 2: Historical Natural Gas 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 Assembly 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.*[3]

  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 investor-owned electric utility, taking into account the utility's cost-effective DSM potential, the need for electricity resources, the benefits of DSM investments, and other factors as determined by the commission. The energy savings and peak demand reduction goals shall be at 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.*[4]

- 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..
- 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

[3] § 40-3.2-101, C.R.S.
[4] § 40-3.2-104(2)

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.
- On October 30, 2014 the Company filed a combined electric and natural gas 2015/16 DSM Plan in Proceeding No. 14A-1057EG. On March 3, 2015 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 without modification by the Administrative Law Judge by Recommended Decision No. R15-0496, issued on May 22, 2015. The Commission stayed the Recommended Decision through Decision No. C15-0543-I; and exceptions to the Recommended Decision were filed by Western Resource Advocates and the Office of Consumer Counsel. On July 21, 2015, the Commission issued Decision No. C14-0735 addressed exceptions, and required the Company to

conduct an avoided transmission and distribution study with its next DSM Plan. The Decision also required the Company to submit within 10 days an avoided energy compliance filing using Strategist modeling, which the Company filed on July 31, 2015. The final Decision became effective on August 1, 2015. On August 20, 2015, Public Service filed the updated 2015/16 DSM Plan, reflecting changes approved with approval of the Stipulation and Settlement Agreement.

High-Level Achievements

In 2015, Public Service's electric portfolio achieved demand savings of 82,932 net gen. kW (87% of filed target) and energy savings of 405,702,592 net gen. kWh (100% of filed target, 104% of blended goal) at a cost of $87,125,687 (91% of filed budget). The natural gas portfolio achieved savings of 598,015 Dth (102% of filed target, 98% of blended goal) at a cost of $12,880,516 (98% 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 2015

2015 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	$ 47,022,790	$42,444,014	40,424	36,832	260,893,380	228,917,215	1.62	1.54
Residential	$ 25,626,280	$25,045,421	38,062	34,663	135,601,572	170,083,064	2.28	2.24
Low-Income	$ 3,027,493	$3,087,697	799	895	7,114,674	6,503,439	1.22	1.09
Indirect	$ 5,919,135	$4,128,322	165	5	3,066,995	53,507	n/a	n/a
Demand Response	$ 13,731,985	$12,420,232	15,486	10,536	227,146	145,366	1.80	1.60
2015 TOTAL	**$ 95,327,683**	**$87,125,687**	**94,936**	**82,932**	**406,903,766**	**405,702,592**	**1.73**	**1.66**

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 2015

2015 Programs	Natural Gas Budget	Natural Gas Expenditures (Actual)	Dth Target	Net. Realized Dth	MTRC Target	MTRC (Actual)
Business	$2,013,309	$2,300,614	187,082	143,964	1.32	1.47
Residential	$5,878,245	$5,865,127	328,933	393,494	1.72	2.24
Low-Income	$3,399,258	$3,174,843	56,164	60,375	1.22	1.54
Indirect	$1,840,042	$1,539,931	14,646	183	n/a	n/a
2015 TOTAL	**$13,130,855**	$12,880,516	**586,826**	**598,015**	**1.43**	**1.80**

These achievements shown in Tables 1a and 1b have provided electric net benefits of approximately $134.1 million and natural gas net benefits of $25.1 million. Based on these achievements and net benefits, the Company has calculated an associated financial incentive of $11.0 million for its electric portfolio and $3.2 million for its natural gas portfolio. This includes $2,760,103 for the incentive and an acknowledgement of lost revenues (ALR)

associated with gas DSM programs of $528,804. 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	$336,340,091	$56,687,858
MTRC Costs	$202,188,497	$31,517,418
MTRC Ratio	1.66	1.80
MTRC Benefits w/Adder	$336,340,091	$56,687,858
Incentive	$11,064,703	$2,760,103
Acknowledgement of Lost Revenue (ALR)	n/a	$528,804
MTRC Costs w/Incentive & ALR	$213,253,200	$34,806,325
MTRC Ratio w/Incentive & ALR	1.58	1.63

Some of the products that are part of the Company's portfolio did not pass the MTRC test in 2015. While each of the products listed below are discussed in more detail in the 2015 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 2016.

Business Program

- *Heating Efficiency – Natural Gas (0.86 MTRC)*
  - A shift in the product marketing strategy in 2015, aimed at raising customer awareness and participation, resulted in higher advertising and administration costs.
  - Relatively high incremental capital costs, in comparison to product expenditures, negatively impacted the cost-benefit analysis.

  Efforts to improve for 2016: The Company will focus on promoting measures within the product that are more cost-effective, while monitoring the costs for administrative expenses to the best extent possible.

Residential Program

- *Energy Feedback Residential – Electric (0.92 MTRC)*
  - The product significantly under delivered net gen kW energy savings in comparison to the Plan target, which resulted in lower than forecasted avoided costs (benefits).

  Efforts to improve for 2016: The Company will work with the third-party implementer to develop and deploy additional strategies and tactics that are designed to increase participant kW energy savings. Preliminary tactics may include changing the report cadence to deliver more reports during the peak summer months or implementing a

summer "coach" program that uses email and interactive voice response (IVR) calls to alert participants to above-average temperature days and steps that customers can take to reduce their demand. Third-party implementer administration expenses will be closely monitored and managed.

- *High Efficiency Air Conditioning – Electric (0.76 MTRC)*

  Customers participating in the product face high incremental capital costs to move beyond the baseline units, and incremental capital costs made up half of the total costs included in the cost-benefit analysis.

  Efforts to improve for 2016: The Company will closely monitor the costs for the product that are within our control—administrative expenses—to ensure cost-effectiveness to the greatest extent possible. The Company will reduce advertising expenditures and utilize low-cost promotional channels to maintain customer awareness.

- *Home Energy Squad – Electric & Natural Gas (0.28 and 0.43 MTRC)*
  - The product launched later than anticipated due to mid-year approval of the 2015/16 DSM Plan, making it difficult to achieve the 2015 participation and energy savings targets in only a few months.

  Efforts to improve for 2016: The Company will increase promotional and advertising efforts to ensure participation levels that can meet both natural gas and electric energy savings targets.

- *Home Performance with ENERGY STAR – Electric & Natural Gas (0.93 and 0.94 MTRC)*
  - Incremental capital costs were higher than forecasted, which decreased cost-effectiveness.
  - Participation was lower than forecasted due to the removal of tier 1 insulation rebates.

  Efforts to improve for 2016: The Company will evaluate the potential for increasing rebate levels and will continue education efforts for HVAC cooling trade partners and auditors to drive participants to the product.

- *Insulation & Air Sealing – Electric & Natural Gas (0.91 and 0.94 MTRC)*
  - Exceeding the product participation targets resulted in higher than forecasted rebate expenditures.
  - Relatively high incremental capital costs of this product negatively impacted the cost-benefit analysis.
  - The lowest air sealing reduction tier (10%) is the least cost-effective measure, yet had the most customer participation.

  Efforts to improve for 2016: The Company will consider restructuring the product to improve cost-effectiveness, via a 60-Day Notice. Additionally, the Company will increase promotion of the benefits of more cost effective air sealing and insulation measures through social media and case studies.

- *Water Heating – Electric & Natural Gas (0.98 and 0.48 MTRC)*
    - The electric product was marginally non-cost-effective with fewer than forecasted electric participants in 2015.
    - The natural gas product was not cost-effective, but far exceeded its natural gas savings and participant targets for 2015, while keeping expenditures at a reasonable level.

  Efforts to improve for 2016: The Company will continue to make efforts to meet the savings targets for .67 (EF) Standard Storage Tank Gas Water Heaters and .90 (EF) Tankless Gas Water Heaters. Electric Water Heaters are forecasted to meet the savings targets as well, but the Company anticipates that the product will remain non-cost-effective. The Company plans to partner with retailers who have the highest potential of participants to leverage their support to obtain electric savings targets.

Low-Income Program

- *Multi-Family Weatherization – Electric & Natural Gas (0.95 and 0.85 MTRC)*
    - Higher-cost electric measures, such as HVAC systems and exterior lighting, impacted the product's cost per kWh, which reduced cost-effectiveness.
    - Although natural gas cost-effectiveness improved compared to 2014, higher-cost natural gas measures like boiler replacements as part of bundled retrofit proposals increased the product's cost per Dekatherm, which reduced cost-effectiveness.

  Efforts to improve for 2016: The Company will encourage the inclusion of more cost-effective measures, such as lighting, showerheads and faucet aerators, in bundled proposals to retrofit low-income multi-family buildings.

- *Non-Profit Energy Efficiency – Natural Gas (0.78 MTRC)*
    - Although the product's natural gas cost-effectiveness improved compared to 2014, higher-cost natural gas measures like boiler replacements, insulation and weather stripping as part of bundled retrofit proposals increased the product's cost per Dekatherm, which reduced cost-effectiveness.

  Efforts to improve for 2016: The Company will encourage lower-cost natural gas measures such as showerheads and faucet aerators in project retrofit proposals.

- *Single Family Weatherization – Electric (0. 97 MTRC)*
    - There were few project opportunities with building shell measures, which are the most cost-effective electric measures.

  Efforts to improve for 2016: The Company will continue to aim to serve more electrically heated homes to improve electric savings and focus on more outreach to Summit County to identify additional electric opportunities there.

Indirect Products & Services

- *Multifamily Buildings Pilot – Electric & Natural Gas (0.56 and 0.58 MTRC)*
  - The pilot was not cost-effective in 2015 due to higher than forecasted start-up and implementation costs and the lower than forecasted energy savings.

  Efforts to improve for 2016: This product is expected to be cost-effective given a full year of activity, however; the Company will work with the third-party administrator to ensure installation goals are met to deliver energy savings on budget, demonstrating the potential for future transition to a product.

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.

Thirteen 60-Day Notices were posted that impacted CY 2015,[5] and are shown in Table 2 below; these included the addition of nine new measures to the portfolio, updates to technical assumptions, and information for stakeholders regarding clarifications and intentions of the Company. The Company did not post any 90-Day Notices in 2015. 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/Filings/Colorado_Demand-Side_Management.

[5] The Company filed five 60-Day Notices near the end of 2015 that impact 2016 only and are not included; four Notices filed near the end of 2014 and one in early 2016 that impacted 2015 are included.

Table 2: 60/90-Day Notices Impacting 2015

Product	Notice Date	Notice Type	
Business Program			
Commercial Refrigeration Efficiency	10/27/2015	60-Day	New Measure ("Close-the-Case")
Computer Efficiency	9/25/2015	60-Day	New Measure (Upstream HE Power Supplies for Servers)
Heating Efficiency	11/5/2015	60-Day	New Measure (ECM on Furnace Fan)
Lighting Efficiency	11/26/2014	60-Day	New Measure (Midstream "Instant Rebate")
Lighting Efficiency / Lighting Small Business	10/14/2015	60-Day	New Measures (Bay Lighting & LED Linear Tubes) and Technical Assumption Updates
New Construction	10/12/2015	60-Day	Technical Assumption Updates
Residential Program			
Energy Feedback Residential	12/3/2014	60-Day	Launch of Expansion Group for Transition to Product
ENERGY STAR New Homes	12/1/2014	60-Day	Technical Assumption Updates and Rebate Changes
Low-Income Program			
Electronically Commutated Motors	1/13/2016	60-Day	Technical Assumption Updates
Energy Savings Kits / Single-Family Weatherization	10/1/2015	60-Day	New Measure (LED bulbs)
Indirect Products & Services			
Energy Feedback – Business Pilot	11/25/2015	60-Day	Postponement of Transition to Product
Ground-Source Heat Pump Analysis	12/23/2014	60-Day	Explanatory Analysis Results
Multifamily Buildings Pilot	11/12/2015	60-Day	New Measures (Showerheads and CFL Globes) and Technical Assumption Updates

Additional detail on the impact of these changes can be found in the 2015 Status Report section of this report, within each DSM product summary.

RFP Administrative Costs for Third-Party Implementation

As required in Decision No. C11-0442 (Proceeding No. 10A-554EG),[6] the Company continues to track administrative costs incurred for conducting requests for proposals (RFPs), shown in Table 3 below.

[6] 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.

Table 3: RFP Administrative Costs in 2015

Product	**2015 Expenditures**
Energy Information Systems	$ 5,438
Home Energy Squad	$ 5,116
Refrigerator Recycling	$ 1,195
Multifamily Buildings Pilot	$ 6,822
Small Business Smart Thermostat DR Pilot	$ 4,519
TOTAL	**$ 23,090**

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 2015 DSM Plan. Tables 4b and 5b provide the Company's 2015 achievements, actual expenditures, and cost-effectiveness results by product.

Table 4a: 2015 Electric Program Targets and Budgets

2015	Electric Budget	Net Generator kW	Net Generator kWh	Electric MTRC Test Ratio
Business Program				
Commercial Refrigeration Efficiency	$1,755,953	819	8,906,511	1.43
Compressed Air Efficiency	$773,251	496	3,173,698	1.48
Computer Efficiency	$916,554	1,228	9,147,862	1.50
Cooling	$3,454,564	3,076	9,842,168	1.46
Custom Efficiency	$1,622,590	871	7,745,756	1.34
Data Center Efficiency	$1,286,182	863	8,310,341	1.85
Energy Management Systems	$1,289,835	210	8,185,221	1.54
Heating Efficiency	$0	0	0	
LED Street Lights	$31,000	0	1,000,960	1.33
Lighting Efficiency	$12,161,368	12,570	81,922,710	1.71
Lighting - Small Business	$3,625,780	3,128	20,754,224	1.69
Motor & Drive Efficiency	$3,015,493	1,701	11,100,875	1.65
New Construction	$11,622,121	11,441	43,383,388	1.39
Process Efficiency	$3,590,088	2,808	35,293,136	2.12
Recommissioning	$979,014	350	6,449,641	1.30
Self Direct	$898,997	864	5,676,889	1.54
Business Program Total	**$47,022,790**	**40,424**	**260,893,380**	**1.62**
Residential Program				
Energy Efficiency Showerhead	$55,455	54	706,159	7.98
Energy Feedback Residential	$3,212,779	12,744	14,381,570	1.78
ENERGY STAR New Homes	$813,717	869	2,535,469	1.38
Evaporative Cooling	$2,993,071	5,641	5,078,655	5.89
High Efficiency Air Conditioning	$2,615,406	2,283	2,058,796	0.80
Home Energy Squad	$346,156	222	522,927	1.65
Home Lighting & Recycling	$12,053,117	14,636	98,760,793	2.11
Home Performance with ENERGY STAR	$362,031	288	594,532	1.05
Insulation & Air Sealing	$84,548	150	179,911	0.97
Refrigerator & Freezer Recycling	$1,282,631	458	4,008,195	1.50
Residential Heating	$321,715	242	2,557,160	1.39
School Education Kits	$1,448,430	454	4,106,097	1.50
Water Heating	$37,224	22	111,307	0.82
Residential Program Total	**$25,626,280**	**38,062**	**135,601,572**	**2.28**
Low-Income Program				
Energy Savings Kit	$289,831	112	1,008,759	2.02
Multifamily Weatherization	$816,964	252	1,917,554	1.12
Non-Profit	$518,267	216	1,838,130	1.62
Single-Family Weatherization	$1,402,432	219	2,350,230	0.98
Low-Income Program Total	**$3,027,493**	**799**	**7,114,674**	**1.22**

Table 4a: (Cont.)

2015	Electric Budget	Net Generator kW	Net Generator kWh	Electric MTRC Test Ratio
Indirect Products & Services				
Education/Market Transformation				
Business Education	$152,457			
Business Energy Analysis	$986,149			
Consumer Education	$1,082,674			
Energy Efficiency Financing	$60,000			
Home Energy Audit	$580,543			
Education/Market Transformation Total	**$2,861,823**			
Planning and Research				
DSM Planning & Administration	$482,174			
Program Evaluations	$297,496			
Market Research	$328,046			
Measurement & Verification	$15,140			
Product Development	$1,210,582			
Energy Feedback Pilot - Business	$149,163	86	2,586,342	2.12
Multifamily Buildings Pilot - EE	$146,644	80	480,653	1.72
Smart Thermostat Pilot - EE	$353,363			
Building Optimization DR Pilot	$74,704			
Product Development Total	**$1,934,456**	**165**	**3,066,995**	**0.42**
Planning and Research Total	**$3,057,312**	**165**	**3,066,995**	**0.27**
Indirect Products & Services Total	**$5,919,135**	**165**	**3,066,995**	**0.18**
EE PORTFOLIO TOTAL	**$81,595,698**	**79,450**	**406,676,621**	**1.72**
Demand Response Program				
Saver's Switch	$12,801,015	13,390	174,412	1.92
Smart Thermostat Pilot - DR	$373,850	638	8,310	0.35
Small Business Smart Thermostat Pilot	$374,226	624	17,726	2.12
Building Optimization DR Pilot	$182,894	834	26,698	0.53
DR PORTFOLIO TOTAL	**$13,731,985**	**15,486**	**227,146**	**1.80**
PORTFOLIO TOTAL	**$95,327,683**	**94,936**	**406,903,766**	**1.73**

Table 4b: 2015 Electric Program Achievements and Expenditures

2015	Electric Expenditures	Net Generator kW	Net Generator kWh	Electric MTRC Test Ratio
Business Program				
Commercial Refrigeration Efficiency	$1,044,251	467	4,298,367	1.29
Compressed Air Efficiency	$686,099	561	3,977,031	1.59
Computer Efficiency	$433,972	579	4,307,873	1.45
Cooling	$3,853,095	2,308	11,432,861	1.35
Custom Efficiency	$1,320,622	783	7,325,811	1.09
Data Center Efficiency	$1,572,345	942	13,902,972	1.59
Energy Management Systems	$1,001,406	40	7,093,365	1.51
Heating Efficiency	$0	0	0	
LED Street Lighting	$0	0	0	
Lighting Efficiency	$11,956,270	11,096	65,565,649	1.36
Lighting - Small Business	$4,682,524	3,464	21,026,070	1.31
Motor & Drive Efficiency	$3,139,981	2,252	13,935,338	1.73
New Construction	$9,422,731	10,901	47,451,897	1.40
Process Efficiency	$2,394,339	2,522	20,232,098	3.61
Recommissioning	$421,352	306	6,451,154	2.77
Self Direct	$515,028	612	1,916,730	1.00
Business Program Total	**$42,444,014**	**36,832**	**228,917,215**	**1.54**
Residential Program				
Energy Efficient Showerhead	$62,984	80	1,367,484	10.68
Energy Feedback Residential	$3,155,772	6,407	26,841,827	0.92
ENERGY STAR New Homes	$840,100	1,359	3,469,361	1.69
Evaporative Cooling	$1,954,210	3,734	2,392,160	5.21
High Efficiency Air Conditioning	$3,528,870	3,433	2,597,417	0.76
Home Energy Squad	$78,688	7	31,708	0.28
Home Lighting & Recycling	$11,458,751	17,534	120,224,418	2.67
Home Performance with ENERGY STAR	$205,564	176	344,435	0.93
Insulation & Air Sealing	$132,948	261	330,023	0.91
Refrigerator & Freezer Recycling	$1,526,418	521	4,569,097	1.54
Residential Heating	$685,269	705	3,441,594	1.29
School Education Kits	$1,396,997	434	4,390,372	1.32
Water Heating	$18,851	10	83,167	0.98
Residential Program Total	**$25,045,421**	**34,663**	**170,083,064**	**2.24**
				-
Low-Income Program				
Energy Savings Kit	$230,807	94	1,020,466	1.87
Multifamily Weatherization	$767,780	219	1,922,670	0.95
Non-Profit	$766,776	430	1,900,171	1.22
Single-Family Weatherization	$1,322,334	153	1,660,132	0.97
Low-Income Program Total	**$3,087,697**	**895**	**6,503,439**	**1.09**

Table 4b: (Cont.)

2015	Electric Expenditures	Net Generator kW	Net Generator kWh	Electric MTRC Test Ratio
Indirect Products & Services				
Education/Market Transformation				
Business Education	$148,609			
Business Energy Analysis	$435,813			
Consumer Education	$979,982			
Energy Efficiency Financing	$64,520			
Home Energy Audit	$480,056			
Education/Market Transformation Total	**$2,108,980**			
Planning and Research				
DSM Planning & Administration	$493,844			
Program Evaluations	$436,747			
Market Research	$262,878			
Measurement & Verification	$8,159			
Product Development	$334,127			
Energy Feedback Pilot - Business	$146,357	0	0	
Multifamily Buildings Pilot - EE	$77,910	5	53,507	0.56
Smart Thermostat Pilot - EE	$222,220	0	0	
Building Optimization DR Pilot	$37,101	0	0	
Product Development Total	**$817,715**	**5**	**53,507**	**0.16**
Planning and Research Total	**$2,019,342**	**5**	**53,507**	**0.07**
Indirect Products & Services Total	**$4,128,322**	**5**	**53,507**	**0.13**
EE PORTFOLIO TOTAL	**$74,705,455**	**72,396**	**405,557,226**	**1.67**
Demand Response Program				
Saver's Switch	$12,308,484	10,536	145,366	1.61
Smart Thermostat Pilot - DR	$17,097	0	0	
Small Business Smart Thermostat Pilot	$5,013	0	0	
Building Optimization DR Pilot	$89,639	0	0	
DR PORTFOLIO TOTAL	**$12,420,232**	**10,536**	**145,366**	**1.60**
PORTFOLIO TOTAL	**$87,125,687**	**82,932**	**405,702,592**	**1.66**

Table 5a: 2015 Natural Gas Program Targets and Budgets

2015	Gas Budget	Net Annual Dth Savings	Annual Dth/$M	Gas MTRC Test Net Benefits	Gas MTRC Test Ratio
Business Program					
Commercial Refrigeration Efficiency	$22,472	2,234	99,418	$265,871	10.82
Compressed Air Efficiency					
Computer Efficiency					
Cooling					
Custom Efficiency	$75,044	4,775	63,625	$105,689	1.41
Data Center Efficiency					
Energy Management Systems	$50,549	3,045	60,232	$133,750	1.94
Heating Efficiency	$369,899	17,193	46,480	$326,316	1.39
LED Street Lights					
Lighting Efficiency					
Lighting - Small Business	$6,329	2,175	343,587	$278,401	30.37
Motor & Drive Efficiency					
New Construction	$1,459,429	154,310	105,733	$2,133,311	1.24
Process Efficiency					
Recommissioning	$29,587	3,351	113,246	$31,595	1.38
Self Direct					
Business Program Total	**$2,013,309**	**187,082**	**92,923**	**3,274,933**	**1.32**
Residential Program					
Energy Efficiency Showerhead	$641,217	43,555	67,926	$5,107,200	6.88
Energy Feedback Residential	$451,659	50,080	110,881	$252,451	1.56
ENERGY STAR New Homes	$2,598,853	121,307	46,677	$2,678,342	1.36
Evaporative Cooling					
High Efficiency Air Conditioning					
Home Energy Squad	$288,604	5,448	18,877	$55,266	1.16
Home Lighting & Recycling					
Home Performance with ENERGY STAR	$415,724	16,176	38,911	-$492,333	0.72
Insulation & Air Sealing	$289,297	16,102	55,659	-$274,020	0.83
Refrigerator & Freezer Recycling					
Residential Heating	$725,665	41,771	57,562	$596,054	1.23
School Education Kits	$358,222	31,687	88,457	$3,813,603	8.25
Water Heating	$109,006	2,807	25,747	-$270,265	0.44
Residential Program Total	**$5,878,245**	**328,933**	**55,958**	**$11,466,297**	**1.72**
Low-Income Program					
Energy Savings Kit	$116,186	8,623	74,217	1,085,233	7.78
Multifamily Weatherization	$686,120	10,442	15,218	-193,411	0.86
Non-Profit	$309,044	2,429	7,860	-173,982	0.69
Single-Family Weatherization	$2,287,908	34,670	15,154	643,122	1.16
Low-Income Program Total	**$3,399,258**	**56,164**	**16,522**	**1,360,962**	**1.22**

Table 5a: (Cont.)

2015	Gas Budget	Net Annual Dth Savings	Annual Dth/$M	Gas MTRC Test Net Benefits	Gas MTRC Test Ratio
Indirect Products & Services					
Education/Market Transformation					
Business Education	$43,920	0	0		
Business Energy Analysis	$98,563	0	0		
Consumer Education	$250,557	0	0		
Energy Efficiency Financing	$60,000	0	0		
Home Energy Audit	$596,304	0	0		
Education/Market Transformation Total	**$1,049,344**	**0**	**0**		
Planning and Research					
DSM Planning & Administration	$110,037	0	0		
Program Evaluations	$11,730	0	0		
Market Research	$154,582	0	0		
Measurement & Verification	$2,200	0	0		
Product Development	$214,640	0	0		
Energy Feedback Pilot - Business	$101,337	11,993	118,350	$67,284	1.66
Multifamily Buildings Pilot - EE	$78,384	2,653	33,847	$138,275	2.05
Smart Thermostat Pilot - EE	$117,788	0	0		
Product Development Total	**$512,149**	**14,646**	**28,598**	**-83,120**	
Planning and Research Total	**$790,698**	**14,646**	**18,523**	**-361,669**	
Indirect Products & Services Total	**$1,840,042**	**14,646**	**7,960**	**-$1,162,613**	
EE PORTFOLIO TOTAL	**$13,130,855**	**586,825**	**44,691**	**$14,939,579**	**1.43**

Table 5b: 2015 Natural Gas Program Achievements and Expenditures

2015	Gas Expenditures	Net Annual Dth Savings	Annual Dth/$M	Gas MTRC Test Net Benefits	Gas MTRC Test Ratio
Business Program					
Commercial Refrigeration Efficiency	$13,095	1,272	97,123	$165,278	11.88
Compressed Air Efficiency					
Computer Efficiency					
Cooling					
Custom Efficiency	$148,965	4,719	31,676	$257,057	2.08
Data Center Efficiency					
Energy Management Systems	$61,521	9,606	156,135	$148,063	1.21
Heating Efficiency	$651,827	14,820	22,736	-$221,328	0.86
LED Street Lighting					
Lighting Efficiency					
Lighting - Small Business	$96	400	4,172,489	$56,782	86.66
Motor & Drive Efficiency					
New Construction	$1,404,025	110,067	78,394	$3,557,955	1.58
Process Efficiency					
Recommissioning	$21,085	3,081	146,104	$94,454	3.97
Self Direct					
Business Program Total	**$2,300,614**	**143,964**	**62,576**	**$4,058,261**	**1.47**
Residential Program					
Energy Efficient Showerhead	$571,205	65,045	113,874	$9,227,482	13.05
Energy Feedback Residential	$465,345	101,167	217,402	$186,046	1.40
ENERGY STAR New Homes	$2,541,609	115,197	45,324	$4,270,537	1.61
Evaporative Cooling					
High Efficiency Air Conditioning					
Home Energy Squad	$63,460	312	4,913	-$36,123	0.43
Home Lighting & Recycling					
Home Performance with ENERGY STAR	$328,173	13,754	41,912	-$78,190	0.94
Insulation & Air Sealing	$457,554	23,515	51,392	-$104,182	0.95
Refrigerator & Freezer Recycling					
Residential Heating	$859,685	39,821	46,321	$1,415,101	1.66
School Education Kits	$440,800	29,802	67,610	$4,702,173	8.76
Water Heating	$137,297	4,881	35,549	-$456,444	0.48
Residential Program Total	**$5,865,127**	**393,494**	**67,090**	**$19,126,400**	**2.24**
Low-Income Program					
Energy Savings Kit	$94,203	9,334	99,088	$1,676,667	13.56
Multifamily Weatherization	$943,200	10,955	11,614	-$285,504	0.85
Non-Profit	$464,112	3,321	7,155	-$188,986	0.78
Single-Family Weatherization	$1,673,327	36,765	21,971	$2,010,475	1.68
Low-Income Program Total	**$3,174,843**	**60,375**	**19,017**	**$3,212,653**	**1.54**

Table 5b: (Cont.)

2015	Gas Expenditures	Net Annual Dth Savings	Annual Dth/$M	Gas MTRC Test Net Benefits	Gas MTRC Test Ratio
Indirect Products & Services					
Education/Market Transformation					
Business Education	$40,132			-$40,132	
Business Energy Analysis	$35,230			-$6,503	
Consumer Education	$264,662			-$264,662	
Energy Efficiency Financing	$59,153			-$59,153	
Home Energy Audit	$521,310			-$302,664	
Education/Market Transformation Total	**$920,487**			**-$673,115**	
Planning and Research					
DSM Planning & Administration	$121,486			-$121,486	
Program Evaluations	$6,821			-$6,821	
Market Research	$151,347			-$151,347	
Measurement & Verification	$3,504			-$3,504	
Product Development	$91,255			-$91,255	
Energy Feedback Pilot - Business	$96,115			-$96,115	
Multifamily Buildings Pilot - EE	$46,802	183	3,899	-$19,665	0.58
Smart Thermostat Pilot - EE	$102,114			-$63,565	
Product Development Total	**$336,286**	**183**	**3,899**	**-$270,601**	
Planning and Research Total	**$619,445**	**183**	**3,899**	**-$553,759**	
Indirect Products & Services Total	**$1,539,931**	**183**	**3,899**	**-$1,226,874**	
EE PORTFOLIO TOTAL	**$12,880,516**	**598,015**	**46,428**	**$25,170,440**	**1.80**

Table 6 below provides the CO_2 and SO_X emissions avoided for 2015 and cumulatively over the lifetime for each product.

Table 6: 2015 Emissions Avoided

	Annual				Cumulative over Lifetime			
	Tons CO_2			lbs. SOx	Tons CO_2			lbs. SOx
2015	**Electric**	**Gas**	**Total**	**Electric**	**Electric**	**Gas**	**Total**	**Electric**
Business Program								
Commercial Refrigeration Efficiency	3,138	77	3,215	2,556	38,227	685	38,912	18,986
Compressed Air Efficiency	2,903		2,903	2,365	42,190		42,190	20,758
Computer Efficiency	3,145		3,145	2,562	16,225		16,225	8,633
Cooling	8,346		8,346	6,799	161,412		161,412	76,659
Custom Efficiency	5,348	285	5,633	4,356	91,468	5,221	96,689	44,752
Data Center Efficiency	10,149		10,149	8,268	168,588		168,588	81,852
Energy Management Systems	5,178	581	5,759	4,218	77,672	8,717	86,389	38,439
Heating Efficiency	0	897	897	0	0	14,524	14,524	0
LED Street Lighting	0		0	0	0		0	0
Lighting Efficiency	47,863		47,863	38,990	747,822		747,822	365,586
Lighting - Small Business	15,349	24	15,373	12,504	179,789	218	180,007	87,368
Motor & Drive Efficiency	10,173		10,173	8,287	155,583		155,583	75,717
New Construction	34,640	6,659	41,299	28,218	692,798	133,181	825,979	322,347
Process Efficiency	14,769		14,769	12,031	251,080		251,080	122,844
Recommissioning	4,709	186	4,896	3,836	32,965	1,305	34,270	16,756
Self Direct	1,399		1,399	1,140	26,585		26,585	12,644
Business Program Total	**167,110**	**8,710**	**175,819**	**136,131**	**2,675,269**	**163,851**	**2,839,120**	**1,305,037**
Residential Program								
Energy Efficient Showerhead	998	3,935	4,934	813	5,452	39,352	44,805	2,715
Energy Feedback Residential	19,595	6,121	25,715	15,962	29,933	7,601	37,534	24,384
ENERGY STAR New Homes	2,533	6,969	9,502	2,063	47,650	139,175	186,825	23,038
Evaporative Cooling	1,746		1,746	1,423	26,194		26,194	12,748
High Efficiency Air Conditioning	1,896		1,896	1,545	13,477		13,477	6,904
Home Energy Squad	23	19	42	19	314	196	510	158
Home Lighting & Recycling	87,764		87,764	71,494	1,254,253		1,254,253	640,604
Home Performance with ENERGY STAR	251	832	1,084	205	3,119	13,762	16,881	1,501
Insulation & Air Sealing	241	1,423	1,664	196	1,812	23,367	25,179	921
Refrigerator & Freezer Recycling	3,335		3,335	2,717	29,098		29,098	14,381
Residential Heating	2,512	2,409	4,922	2,047	22,099	43,437	65,535	11,000
School Education Kits	3,205	1,803	5,008	2,611	45,577	18,030	63,607	23,232
Water Heating	61	295	356	49	241	4,937	5,179	136
Residential Program Total	**124,161**	**23,806**	**147,967**	**101,144**	**1,520,982**	**289,858**	**1,810,840**	**758,469**
Low-Income Program								
Energy Savings Kit	745	565	1,310	607	9,848	5,647	15,495	4,963
Multifamily Weatherization	1,404	663	2,066	1,143	15,439	7,290	22,729	7,506
Non-Profit	1,387	201	1,588	1,130	23,581	3,415	26,996	11,537
Single-Family Weatherization	1,212	2,224	3,436	987	14,788	40,484	55,272	7,378
Low-Income Program Total	**$4,748**	**$3,653**	**$8,400**	**$3,867**	**$63,570**	**$56,837**	**$120,407**	**$31,950**
Indirect Products & Services								
Multifamily Buildings Pilot - EE	39	11	50	32	546	110	657	274
Indirect Products & Services Total	**39**	**11**	**50**	**32**	**546**	**110**	**657**	**274**
EE PORTFOLIO TOTAL	**296,057**	**36,180**	**332,237**	**241,173**	**4,231,283**	**510,656**	**4,741,939**	**2,112,879**
Demand Response Program								
Saver's Switch	106		106	86	1,592		1,592	775
DR PORTFOLIO TOTAL	**106**	**0**	**106**	**86**	**1,592**	**0**	**1,592**	**775**
PORTFOLIO TOTAL	**296,163**	**36,180**	**332,343**	**241,260**	**4,232,875**	**510,656**	**4,743,530**	**2,113,654**

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 new pilot/product development and management.
   - Expenditures related to product development, planning, and design.

2. **Administration and Program Delivery**
   Expenditures for:
   - Labor for program managers, sales representatives, call 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 communications 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: 2015 Electric Program Costs by Category (Budget)

2015	Program Planning & Design	Admin & Program Delivery	Advertising/ Promotion / Customer Ed	Participant Rebates and Incentives	Equip & Install	M&V	Total
Business Program							
Commercial Refrigeration Efficiency	$0	$977,926	$144,608	$609,419	$0	$24,000	$1,755,953
Compressed Air Efficiency	$12,000	$193,614	$112,456	$430,781	$0	$24,400	$773,251
Computer Efficiency	$0	$878,904	$4,000	$26,650	$0	$7,000	$916,554
Cooling	$15,902	$1,788,522	$114,804	$1,523,336	$0	$12,000	$3,454,564
Custom Efficiency	$10,254	$614,818	$156,363	$799,155	$0	$42,000	$1,622,590
Data Center Efficiency	$0	$180,411	$173,450	$910,241	$0	$22,080	$1,286,182
Energy Management Systems	$0	$276,711	$265,139	$733,336	$0	$14,649	$1,289,835
Heating Efficiency	$0	$0	$0	$0	$0	$0	$0
LED Street Lights	$0	$31,000	$0	$0	$0	$0	$31,000
Lighting Efficiency	$18,025	$2,681,800	$831,215	$8,574,308	$0	$56,020	$12,161,368
Lighting - Small Business	$0	$1,996,730	$185,824	$1,388,226	$0	$55,000	$3,625,780
Motor & Drive Efficiency	$7,062	$835,915	$276,687	$1,851,665	$0	$44,164	$3,015,493
New Construction	$5,712	$3,224,691	$373,010	$7,430,381	$0	$588,327	$11,622,121
Process Efficiency	$0	$343,212	$29,051	$3,190,825	$0	$27,000	$3,590,088
Recommissioning	$0	$241,918	$96,240	$640,856	$0	$0	$979,014
Self Direct	$0	$105,047	$31,697	$762,253	$0	$0	$898,997
Business Program Total	**$68,955**	**$14,371,219**	**$2,794,544**	**$28,871,432**	**$0**	**$916,640**	**$47,022,790**
Residential Program							
Energy Efficiency Showerhead	$0	$29,629	$10,993	$14,633	$0	$200	$55,455
Energy Feedback Residential	$16,193	$3,117,298	$44,144	$0	$0	$35,144	$3,212,779
ENERGY STAR New Homes	$0	$190,390	$26,750	$492,607	$0	$103,970	$813,717
Evaporative Cooling	$0	$666,995	$577,376	$1,703,700	$0	$45,000	$2,993,071
High Efficiency Air Conditioning	$0	$323,389	$203,902	$2,048,115	$0	$40,000	$2,615,406
Home Energy Squad	$0	$80,831	$87,542	$21,487	$151,296	$5,000	$346,156
Home Lighting & Recycling	$15,000	$1,115,107	$1,010,000	$9,891,010	$0	$22,000	$12,053,117
Home Performance with ENERGY STAR	$0	$173,976	$1,800	$156,255	$0	$30,000	$362,031
Insulation & Air Sealing	$0	$27,413	$0	$47,135	$0	$10,000	$84,548
Refrigerator & Freezer Recycling	$700	$596,052	$299,879	$375,000	$0	$11,000	$1,282,631
Residential Heating	$0	$37,842	$24,393	$250,000	$0	$9,480	$321,715
School Education Kits	$0	$718,555	$0	$729,875	$0	$0	$1,448,430
Water Heating	$0	$5,548	$1,926	$24,750	$0	$5,000	$37,224
Residential Program Total	**$31,893**	**$7,083,025**	**$2,288,705**	**$15,754,567**	**$151,296**	**$316,794**	**$25,626,280**
Low-Income Program							
Energy Savings Kit	$0	$86,085	$86,885	$114,361	$0	$2,500	$289,831
Multifamily Weatherization	$0	$83,005	$53,978	$664,630	$0	$15,351	$816,964
Non-Profit	$0	$108,402	$45,000	$337,040	$0	$27,825	$518,267
Single-Family Weatherization	$0	$214,748	$60,000	$1,073,985	$0	$53,699	$1,402,432
Low-Income Program Total	**$0**	**$492,240**	**$245,863**	**$2,190,015**	**$0**	**$99,375**	**$3,027,493**

Table 7a: (Cont.)

2015	Program Planning & Design	Admin & Program Delivery	Advertising Promotion Cust. Ed	Participant Rebates and Incentives	Equip & Install	M&V	Total
Indirect Products & Services							
Education/Market Transformation							
Business Education	$0	$12,095	$140,362	$0	$0	$0	$152,457
Business Energy Analysis	$30,000	$814,043	$142,106	$0	$0	$0	$986,149
Consumer Education	$0	$498,957	$583,717	$0	$0	$0	$1,082,674
Energy Efficiency Financing	$3,600	$5,599	$50,801	$0	$0	$0	$60,000
Home Energy Audit	$0	$268,257	$60,694	$211,600	$0	$39,992	$580,543
Education/Market Transformation Total	**$33,600**	**$1,598,951**	**$977,680**	**$211,600**	**$0**	**$39,992**	**$2,861,823**
Planning and Research	$0	$0	$0	$0	$0	$0	$0
DSM Planning & Administration	$0	$482,174	$0	$0	$0	$0	$482,174
Program Evaluations	$0	$0	$0	$0	$0	$297,496	$297,496
Market Research	$0	$306,705	$3,305	$0	$0	$18,036	$328,046
Measurement & Verification	$0	$15,140	$0	$0	$0	$0	$15,140
Product Development	$472,193	$737,745	$0	$0	$0	$644	$1,210,582
Energy Feedback Pilot - Business	$10,718	$108,672	$0	$0	$0	$29,773	$149,163
Multifamily Buildings Pilot - EE	$10,944	$59,293	$7,776	$59,991	$0	$8,640	$146,644
Smart Thermostat Pilot - EE	$8,550	$44,438	$9,750	$131,250	$0	$159,375	$353,363
Building Optimization DR Pilot	$7,250	$60,494	$6,960	$0	$0	$0	$74,704
Product Development Total	**$509,655**	**$1,010,642**	**$24,486**	**$191,241**	**$0**	**$198,432**	**$1,934,456**
Planning and Research Total	**$509,655**	**$1,814,661**	**$27,791**	**$191,241**	**$0**	**$513,964**	**$3,057,312**
Indirect Products & Services Total	**$543,255**	**$3,413,612**	**$1,005,471**	**$402,841**	**$0**	**$553,956**	**$5,919,135**
EE PORTFOLIO TOTAL	**$644,103**	**$25,360,096**	**$6,334,583**	**$47,218,856**	**$151,296**	**$1,886,765**	**$81,595,699**
Demand Response Program							
Saver's Switch	$0	$3,363,759	$1,774,696	$7,527,560	$0	$135,000	$12,801,015
Smart Thermostat Pilot - DR	$7,600	$111,250	$5,000	$62,500	$0	$187,500	$373,850
Small Biz Smart Thermostat Pilot	$22,500	$195,750	$0	$23,250	$82,726	$50,000	$374,226
Building Optimization DR Pilot	$17,747	$148,107	$17,040	$0	$0	$0	$182,894
DR PORTFOLIO TOTAL	**$47,847**	**$3,818,866**	**$1,796,736**	**$7,613,310**	**$82,726**	**$372,500**	**$13,731,985**
PORTFOLIO TOTAL	**$691,950**	**$29,178,962**	**$8,131,319**	**$54,832,165**	**$234,022**	**$2,259,265**	**$95,327,683**

Table 7b: 2015 Electric Program Costs by Category (Actual Expenditures)

2015	Program Planning & Design	Admin & Program Delivery	Advertising/ Promotion/ Customer Ed	Participant Rebates and Incentives	Equip & Install	M&V	Total
Business Program							
Commercial Refrigeration Efficiency	$0	$573,213	$17,959	$434,630	$0	$18,450	$1,044,251
Compressed Air Efficiency	$0	$198,462	$41,400	$435,881	$0	$10,356	$686,099
Computer Efficiency	$0	$393,391	$1,461	$39,120	$0	$0	$433,972
Cooling	$0	$1,530,136	$89,121	$2,214,749	$0	$19,089	$3,853,095
Custom Efficiency	$0	$713,473	$141,873	$446,692	$0	$18,585	$1,320,622
Data Center Efficiency	$0	$113,793	$197,297	$1,259,578	$0	$1,676	$1,572,345
Energy Management Systems	$0	$303,681	$141,050	$535,847	$0	$20,828	$1,001,406
Heating Efficiency	$0	$0	$0	$0	$0	$0	$0
LED Street Lighting	$0	$0	$0	$0	$0	$0	$0
Lighting Efficiency	$0	$2,600,918	$567,254	$8,698,906	$0	$89,192	$11,956,270
Lighting - Small Business	$0	$1,840,622	$143,217	$2,662,716	$0	$35,969	$4,682,524
Motor & Drive Efficiency	$0	$494,152	$264,237	$2,360,718	$0	$20,875	$3,139,981
New Construction	$0	$2,473,440	$199,236	$6,390,831	$0	$359,224	$9,422,731
Process Efficiency	$0	$505,841	$15,383	$1,841,457	$0	$31,658	$2,394,339
Recommissioning	$0	$190,405	$69,441	$161,505	$0	$0	$421,352
Self Direct	$0	$113,212	$18,298	$383,518	$0	$0	$515,028
Business Program Total	**$0**	**$12,044,738**	**$1,907,227**	**$27,866,148**	**$0**	**$625,901**	**$42,444,014**
Residential Program							
Energy Efficient Showerhead	$0	$39,345	$5,812	$17,616	$0	$212	$62,984
Energy Feedback Residential	$6,907	$3,113,864	$0	$0	$0	$35,000	$3,155,772
ENERGY STAR New Homes	$0	$164,813	$11,192	$575,168	$0	$88,928	$840,100
Evaporative Cooling	$0	$473,458	$292,834	$1,164,669	$0	$23,250	$1,954,210
High Efficiency Air Conditioning	$0	$535,757	$109,533	$2,844,210	$0	$39,370	$3,528,870
Home Energy Squad	$0	$61,801	$5,405	$0	$11,481	$0	$78,688
Home Lighting & Recycling	$0	$741,341	$798,959	$9,901,697	$0	$16,754	$11,458,751
Home Performance with ENERGY STAR	$0	$107,312	$9,918	$71,675	$0	$16,659	$205,564
Insulation & Air Sealing	$0	$13,754	$1,836	$113,358	$0	$4,000	$132,948
Refrigerator & Freezer Recycling	$0	$742,107	$232,061	$547,000	$0	$5,250	$1,526,418
Residential Heating	$0	$63,047	$33,990	$582,420	$0	$5,813	$685,269
School Education Kits	$0	$593,640	$2,630	$800,727	$0	$0	$1,396,997
Water Heating	$0	$5,289	$11	$13,050	$0	$500	$18,851
Residential Program Total	**$6,907**	**$6,655,530**	**$1,504,180**	**$16,631,589**	**$11,481**	**$235,734**	**$25,045,421**
Low-Income Program							
Energy Savings Kit	$0	$76,865	$47,553	$105,690	$0	$698	$230,807
Multifamily Weatherization	$0	$87,998	$0	$659,431	$0	$20,351	$767,780
Non-Profit	$0	$105,240	$0	$628,710	$0	$32,825	$766,776
Single-Family Weatherization	$0	$102,078	$77,249	$1,097,122	$0	$45,885	$1,322,334
Low-Income Program Total	**$0**	**$372,182**	**$124,802**	**$2,490,954**	**$0**	**$99,759**	**$3,087,697**

Table 7b: (Cont.)

2015	Program Planning & Design	Admin & Program Delivery	Advertising/ Promotion/ Customer Ed	Participant Rebates and Incentives	Equip & Install	M&V	Total
Indirect Products & Services							
Education/Market Transformation							
Business Education	$0	$81,733	$66,876	$0	$0	$0	$148,609
Business Energy Analysis							
Consumer Education	$0	$186,961	$793,021	$0	$0	$0	$979,982
Energy Efficiency Financing	$0	$18,515	$46,005	$0	$0	$0	$64,520
Home Energy Audit	$0	$221,994	$49,847	$167,354	$0	$40,861	$480,056
Education/Market Transformation Total	**$0**	**$599,330**	**$1,059,697**	**$409,091**	**$0**	**$40,861**	**$2,108,980**
Planning and Research							
DSM Planning & Admin	$0	$491,343	$2,500	$0	$0	$0	$493,844
Program Evaluations	$1,047	$33,745	$0	$0	$0	$401,955	$436,747
Market Research	$2,093	$248,585	$0	$0	$0	$12,200	$262,878
M&V	$0	$8,159	$0	$0	$0	$0	$8,159
Product Development	$243,251	$85,037	$5,838	$0	$0	$0	$334,127
Energy Feedback Pilot -Business	$8,788	$107,796	$0	$0	$0	$29,773	$146,357
Multifamily Buildings Pilot - EE	$17,275	$40,705	$406	$8,510	$11,014	$0	$77,910
Smart Thermostat Pilot - EE	$65,541	$50,282	$18,346	$88,052	$0	$0	$222,220
Building Optimization DR Pilot	$5,101	$31,760	$239	$0	$0	$0	$37,101
Product Development Total	**$339,957**	**$315,581**	**$24,829**	**$96,561**	**$11,014**	**$29,773**	**$817,715**
Planning and Research Total	**$343,097**	**$1,097,414**	**$27,329**	**$96,561**	**$11,014**	**$443,928**	**$2,019,342**
Indirect Products & Services Total	**$343,097**	**$1,696,744**	**$1,087,026**	**$505,652**	**$11,014**	**$484,789**	**$4,128,322**
EE PORTFOLIO TOTAL	**$350,004**	**$20,769,193**	**$4,623,235**	**$47,494,343**	**$22,495**	**$1,446,184**	**$74,705,455**

Table 8a: 2015 Gas Program Costs by Category (Budget)

2015	Program Planning & Design	Admin & Program Delivery	Advertising/ Promotion/ Customer Ed	Participant Rebates and Incentives	Equip & Install	M&V	Total
Business Program							
Commercial Refrigeration Efficiency	$0	$16,183	$1,200	$4,589	$0	$500	$22,472
Compressed Air Efficiency	$0	$0	$0	$0	$0	$0	$0
Computer Efficiency	$0	$0	$0	$0	$0	$0	$0
Cooling	$0	$0	$0	$0	$0	$0	$0
Custom Efficiency	$0	$54,736	$0	$20,308	$0	$0	$75,044
Data Center Efficiency	$0	$0	$0	$0	$0	$0	$0
Energy Management Systems	$0	$20,058	$1,000	$27,766	$0	$1,725	$50,549
Heating Efficiency	$0	$96,008	$0	$246,681	$0	$27,210	$369,899
LED Street Lights	$0	$0	$0	$0	$0	$0	$0
Lighting Efficiency	$0	$0	$0	$0	$0	$0	$0
Lighting - Small Business	$0	$3,180	$0	$3,149	$0	$0	$6,329
Motor & Drive Efficiency	$0	$0	$0	$0	$0	$0	$0
New Construction	$10,000	$743,847	$200	$625,382	$0	$80,000	$1,459,429
Process Efficiency	$0	$0	$0	$0	$0	$0	$0
Recommissioning	$0	$9,932	$3,000	$16,655	$0	$0	$29,587
Self Direct	$0	$0	$0	$0	$0	$0	$0
Business Program Total	**$10,000**	**$943,944**	**$5,400**	**$944,530**	**$0**	**$109,435**	**$2,013,309**
Residential Program							
Energy Efficiency Showerhead	$0	$342,974	$67,792	$229,251	$0	$1,200	$641,217
Energy Feedback Residential	$3,858	$437,089	$5,856	$0	$0	$4,856	$451,659
ENERGY STAR New Homes	$0	$533,207	$78,250	$1,761,844	$0	$225,552	$2,598,853
Evaporative Cooling	$0	$0	$0	$0	$0	$0	$0
High Efficiency Air Conditioning	$0	$0	$0	$0	$0	$0	$0
Home Energy Squad	$0	$50,750	$81,181	$62,513	$89,160	$5,000	$288,604
Home Lighting & Recycling	$0	$0	$0	$0	$0	$0	$0
Home Performance with ENERGY STAR	$0	$85,159	$153	$300,412	$0	$30,000	$415,724
Insulation & Air Sealing	$0	$43,503	$0	$225,794	$0	$20,000	$289,297
Refrigerator & Freezer Recycling	$0	$0	$0	$0	$0	$0	$0
Residential Heating	$0	$87,248	$56,917	$564,000	$0	$17,500	$725,665
School Education Kits	$0	$190,662	$0	$167,560	$0	$0	$358,222
Water Heating	$0	$20,241	$11,765	$67,000	$0	$10,000	$109,006
Residential Program Total	**$3,858**	**$1,790,833**	**$301,914**	**$3,378,373**	**$89,160**	**$314,108**	**$5,878,245**
Low-Income Program							
Energy Savings Kit	$0	$44,347	$25,377	$43,962	$0	$2,500	$116,186
Multifamily Weatherization	$0	$66,381	$32,393	$574,281	$0	$13,065	$686,120
Non-Profit	$0	$74,204	$15,000	$202,782	$0	$17,058	$309,044
Single-Family Weatherization	$0	$253,690	$120,000	$1,824,615	$0	$89,603	$2,287,908
Low-Income Program Total	**$0**	**$438,622**	**$192,770**	**$2,645,640**	**$0**	**$122,226**	**$3,399,258**

Table 8a: (Cont.)

2015	Program Planning & Design	Admin & Program Delivery	Advertising/ Promotion/ Customer Ed	Participant Rebates and Incentives	Equip & Install	M&V	Total
Indirect Products & Services							
Education/Market Transformation							
Business Education	$0	$1,196	$42,724	$0	$0	$0	$43,920
Business Energy Analysis	$12,000	$74,563	$12,000	$0	$0	$0	$98,563
Consumer Education	$0	$104,669	$145,888	$0	$0	$0	$250,557
Energy Efficiency Financing	$3,600	$3,749	$52,651	$0	$0	$0	$60,000
Home Energy Audit	$0	$257,204	$50,708	$248,400	$0	$39,992	$596,304
Education/Market Transformation Total	**$15,600**	**$441,381**	**$303,971**	**$248,400**	**$0**	**$39,992**	**$1,049,344**
Planning and Research	$0	$0	$0	$0	$0	$0	$0
DSM Planning & Administration	$0	$110,037	$0	$0	$0	$0	$110,037
Program Evaluations	$0	$0	$0	$0	$0	$11,730	$11,730
Market Research	$0	$144,686	$4,743	$0	$0	$5,153	$154,582
Measurement & Verification	$0	$2,200	$0	$0	$0	$0	$2,200
Product Development	$108,270	$105,726	$0	$0	$0	$644	$214,640
Energy Feedback Pilot - Business	$7,282	$73,828	$0	$0	$0	$20,227	$101,337
Multifamily Buildings Pilot - EE	$8,056	$43,646	$5,724	$14,598	$0	$6,360	$78,384
Smart Thermostat Pilot - EE	$2,850	$14,813	$3,250	$43,750	$0	$53,125	$117,788
Building Optimization DR Pilot	$0	$0	$0	$0	$0	$0	$0
Product Development Total	**$126,458**	**$238,013**	**$8,974**	**$58,348**	**$0**	**$80,356**	**$512,149**
Planning and Research Total	**$126,458**	**$494,936**	**$13,717**	**$58,348**	**$0**	**$97,239**	**$790,698**
Indirect Products & Services Total	**$142,058**	**$936,317**	**$317,688**	**$306,748**	**$0**	**$137,231**	**$1,840,042**
EE PORTFOLIO TOTAL	**$155,916**	**$4,109,716**	**$817,772**	**$7,275,292**	**$89,160**	**$683,000**	**$13,130,855**

Table 8b: 2015 Gas Program Costs by Category (Actual Expenditures)

2015	Program Planning & Design	Admin & Program Delivery	Advertising/ Promotion/ Customer Ed	Participant Rebates and Incentives	Equip & Install	M&V	Total
Business Program							
Commercial Refrigeration Efficiency	$0	$10,426	$0	$2,668	$0	$0	$13,095
Compressed Air Efficiency	$0	$0	$0	$0	$0	$0	$0
Computer Efficiency	$0	$0	$0	$0	$0	$0	$0
Cooling	$0	$0	$0	$0	$0	$0	$0
Custom Efficiency	$0	$71,688	$49,844	$27,433	$0	$0	$148,965
Data Center Efficiency	$0	$0	$0	$0	$0	$0	$0
Energy Management Systems	$0	$16,149	$2,676	$42,696	$0	$0	$61,521
Heating Efficiency	$0	$256,051	$83,826	$292,325	$0	$19,625	$651,827
LED Street Lighting	$0	$0	$0	$0	$0	$0	$0
Lighting Efficiency	$0	$0	$0	$0	$0	$0	$0
Lighting - Small Business	$0	$48	$0	$48	$0	$0	$96
Motor & Drive Efficiency	$0	$0	$0	$0	$0	$0	$0
New Construction	$0	$573,407	$18,592	$648,082	$0	$163,943	$1,404,025
Process Efficiency	$0	$0	$0	$0	$0	$0	$0
Recommissioning	$0	$5,870	$0	$15,215	$0	$0	$21,085
Self Direct	$0	$0	$0	$0	$0	$0	$0
Business Program Total	**$0**	**$933,639**	**$154,939**	**$1,028,468**	**$0**	**$183,568**	**$2,300,614**
Residential Program							
Energy Efficient Showerhead	$0	$295,651	$52,882	$220,226	$0	$2,446	$571,205
Energy Feedback Residential	$975	$459,370	$0	$0	$0	$5,000	$465,345
ENERGY STAR New Homes	$0	$490,665	$44,238	$1,748,683	$0	$258,023	$2,541,609
Evaporative Cooling	$0	$0	$0	$0	$0	$0	$0
High Efficiency Air Conditioning	$0	$0	$0	$0	$0	$0	$0
Home Energy Squad	$0	$53,872	$5,775	$0	$3,813	$0	$63,460
Home Lighting & Recycling	$0	$0	$0	$0	$0	$0	$0
Home Performance with ENERGY STAR	$0	$91,673	$5,062	$217,681	$0	$13,757	$328,173
Insulation & Air Sealing	$0	$50,072	$2,764	$360,768	$0	$43,950	$457,554
Refrigerator & Freezer Recycling	$0	$0	$0	$0	$0	$0	$0
Residential Heating	$0	$109,540	$248,122	$488,460	$0	$13,563	$859,685
School Education Kits	$0	$262,591	$934	$177,275	$0	$0	$440,800
Water Heating	$0	$44,340	$1,227	$72,505	$0	$19,225	$137,297
Residential Program Total	**$975**	**$1,857,774**	**$361,005**	**$3,285,598**	**$3,813**	**$355,962**	**$5,865,127**
Low-Income Program							
Energy Savings Kit	$0	$45,973	$7,719	$39,813	$0	$698	$94,203
Multifamily Weatherization	$0	$66,442	$168	$858,526	$0	$18,065	$943,200
Non-Profit	$0	$87,290	$0	$354,764	$0	$22,058	$464,112
Single-Family Weatherization	$0	$188,186	$17,658	$1,368,652	$0	$98,830	$1,673,327
Low-Income Program Total	**$0**	**$387,891**	**$25,544**	**$2,621,756**	**$0**	**$139,652**	**$3,174,843**

Table 8b: (Cont.)

2015	Program Planning & Design	Admin & Program Delivery	Advertising/ Promotion/ Customer Ed	Participant Rebates and Incentives	Equip & Install	M&V	Total
Indirect Products & Services							
Education/Market Transformation							
Business Education	$0	$21,849	$18,283	$0	$0	$0	$40,132
Business Energy Analysis							
Consumer Education	$0	$119,827	$144,835	$0	$0	$0	$264,662
Energy Efficiency Financing	$0	$19,826	$39,327	$0	$0	$0	$59,153
Home Energy Audit	$0	$240,775	$23,930	$218,646	$0	$37,959	$521,310
Education/Market Transformation Total	**$0**	**$408,780**	**$226,375**	**$247,372**	**$0**	**$37,959**	**$920,487**
Planning and Research							
DSM Planning & Administration	$0	$121,409	$77	$0	$0	$0	$121,486
Program Evaluations	$131	$4,471	$0	$0	$0	$2,220	$6,821
Market Research	$389	$150,958	$0	$0	$0	$0	$151,347
Measurement & Verification	$0	$3,504	$0	$0	$0	$0	$3,504
Product Development	$63,981	$23,763	$3,511	$0	$0	$0	$91,255
Energy Feedback Pilot - Business	$2,656	$73,232	$0	$0	$0	$20,227	$96,115
Multifamily Buildings Pilot - EE	$14,209	$20,808	$479	$1,066	$10,240	$0	$46,802
Smart Thermostat Pilot - EE	$15,498	$23,333	$24,734	$38,548	$0	$0	$102,114
Building Optimization DR Pilot	$0	$0	$0	$0	$0	$0	$0
Product Development Total	**$96,344**	**$141,136**	**$28,723**	**$39,615**	**$10,240**	**$20,227**	**$336,286**
Planning and Research Total	**$96,864**	**$421,478**	**$28,801**	**$39,615**	**$10,240**	**$22,447**	**$619,445**
Indirect Products & Services Total	**$96,864**	**$830,258**	**$255,176**	**$286,987**	**$10,240**	**$60,406**	**$1,539,931**
EE PORTFOLIO TOTAL	**$97,840**	**$4,009,563**	**$796,663**	**$7,222,808**	**$14,054**	**$739,588**	**$12,880,516**

Participation Analysis

Decision No. C14-0997 requires that the Company *"provide an annual total of DSM program participants and non-participants in its annual status reports filed with the Commission."*[7]

DSM participation totals (customer level) for each customer class, and totals by product, are shown in Tables 9a, 9b, 9c and 9d. Participation in non-individually-tracked programs was estimated using methods described on page 40-43 of the 2015/16 DSM Plan.

The Company believes a thorough analysis of participants and non-participants must go beyond a counting of participation each individual year. It must also consider the amount of cumulative consumption savings realized by individual customers each year, due to participation in electric DSM programs 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 the DSM program since 2009. The combination of these factors results in identification of the level and distribution of bill savings among business and residential customers. This data is shown in Tables 9e, 9f, and 9g.[8]

Table 9a: 2015 Electric Participation, Percentage of Total by Customer Class

	Total Unique DSM Participants (Estimate)[9]		Total PSCo Customers[10]		PSCo Customers Participating in DSM		PSCo Customers Not Participating in DSM	
Electric	**Count**	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
2015 Total	882,413	100%	1,310,424	100%	882,413	67.34%	428,011	32.66%
Business	26,841	3.04%	97,464	7.44%	26,841	27.54%	70,623	72.46%
Residential	855,572	96.96%	1,212,960	92.56%	855,572	70.54%	357,388	29.46%

Table 9b: 2015 Gas Participation, Percentage of Total by Customer Class

	Total Unique DSM Participants (Estimate)[11]		Total DSM-Eligible PSCo Customers		PSCo Customers Participating in DSM		PSCo Customers Not Participating in DSM	
Gas	**Count**	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
2015 Total	441,694	100%	1,354,445	100%	441,694	32.61%	912,751	67.39%
Business	386	0.09%	100,389	7.41%	386	0.38%	100,003	99.62%
Residential	441,308	99.91%	1,254,056	92.59%	441,308	35.19%	812,748	64.81%

[7] Paragraph 24, pg. 8.
[8] 2015 annual consumption was used to estimate Percentage of Annual Electric Consumption savings and Bill Savings for all years.
[9] Participation by DSM product is shown in Table 9c below. Total estimated participation is the sum of DSM product participation estimates less the number of duplicates (participation in multiple products).
[10] Customer count as of 12/31/2015.
[11] Participation by DSM product is shown in Table 9c below. Total estimated participation is the sum of DSM product participation estimates less the number of duplicates (participation in multiple products).

Table 9c: 2015 Electric Participation, Average Rebate and Savings

Product	2015 Participants	Average Rebate per Customer	Average kWh Savings per Customer
Business Program			
Commercial Refrigeration Efficiency	393	$1,105.93	10,937
Compressed Air Efficiency	67	$6,505.69	59,359
Computer Efficiency	2,560	$15.28	1,683
Cooling	272	$8,142.46	42,033
Custom Efficiency	15	$29,779.46	488,387
Data Center Efficiency	11	$114,507.13	1,372,973
Energy Management Systems	76	$7,050.62	93,334
Lighting Efficiency	2,103	$4,136.43	31,177
Lighting - Small Business	1,348	$1,975.31	15,598
Motor & Drive Efficiency	287	$8,225.50	48,555
New Construction	103	$62,046.91	460,698
Process Efficiency	16	$115,091.04	1,264,506
Recommissioning	33	$4,894.10	195,490
Self Direct	2	$191,759.00	958,365
Residential Program			
Energy Efficient Showerhead	3,053	$5.77	448
Energy Feedback Residential	440,137	$0.00	61
ENERGY STAR New Homes	2,609	$220.46	1,330
Evaporative Cooling	2,696	$432.00	887
High Efficiency Air Conditioning	3,599	$790.28	722
Home Energy Squad	56	$0.00	566
Home Lighting & Recycling	421,285	$23.50	285
Home Performance with ENERGY STAR	245	$292.55	1,406
Insulation & Air Sealing	654	$173.33	505
Refrigerator & Freezer Recycling	6,960	$78.59	656
Residential Heating	4,461	$130.56	771
School Education Kits	39,133	$20.46	112
Water Heating	28	$466.07	2,970
Low-Income Program			
Energy Savings Kit	5,888	$17.95	173
Multifamily Weatherization	38	$17,353.46	50,597
Non-Profit	30	$20,957.01	63,339
Single-Family Weatherization	1,543	$711.03	1,076
Indirect Products & Services			
Business Education	1,872	$0.00	0
Business Energy Analysis	130	$0.00	0
Consumer Education	40,635	$0.00	0
Energy Efficiency Financing	81	$0.00	0
Home Energy Audit	2,008	$83.34	0
Planning and Research			
Energy Feedback Pilot – Business	9,920	$0.00	0
Multifamily Buildings Pilot – EE	159	$53.52	337
Smart Thermostat Pilot – EE	2,622	$33.58	0
Building Optimization DR Pilot	5	$0.00	0
Demand Response Program			
Saver's Switch	8,937	N/A	N/A

Table 9d: 2015 Natural Gas Participation

Product	2015 Participants	Average Rebate Per Customer	Average Dth Savings Per Customer
Business Program			
Commercial Refrigeration Efficiency	55	$48.52	23
Custom Efficiency	6	$4,572.23	786
Energy Management Systems	56	$762.43	172
Heating Efficiency	138	$2,118.30	107
Lighting - Small Business	18	$2.67	22
New Construction	79	$8,203.57	1,393
Recommissioning	21	$724.52	147
Residential Program			
Energy Efficient Showerhead	38874	$5.67	2
Energy Feedback Residential	375933	$0.00	0
ENERGY STAR New Homes	3970	$440.47	29
Home Energy Squad	52	$0.00	6
Home Performance with ENERGY STAR	285	$763.79	48
Insulation & Air Sealing	1149	$313.98	20
Residential Heating	3126	$156.26	13
School Education Kits	39133	$4.53	1
Water Heating	879	$82.49	6
Low-Income Program			
Energy Savings Kit	8113	$4.91	1
Multifamily Weatherization	14	$61,323.28	782
Non-Profit	21	$16,893.53	158
Single-Family Weatherization	1100	$1,244.23	33
Indirect Products & Services			
Business Education	706	$0.00	0
Business Energy Analysis	89	$0.00	0
Consumer Education	40636	$0.00	0
Home Energy Audit	2612	$83.71	0
Planning and Research			
Energy Feedback Pilot – Business	6790	$0.00	0
Multifamily Buildings Pilot – EE	159	$6.71	1
Smart Thermostat Pilot – EE	2622	$14.70	0
Building Optimization DR Pilot	3	$0.00	0

Table 9e: Estimated Customer Consumption Savings Range, 2009-2015

Year	Total Non-Participants		DSM Participants Saving 1-2% of Annual Electric Consumption		DSM Participants Savings 3-5% of Annual Electric Consumption		DSM Participants Saving 6-10% of Annual Electric Consumption		DSM Participants Saving 11-25% of Annual Electric Consumption		DSM Participants Saving More than 25% of Annual Electric Consumption	
	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%
2015												
BUS	71,425	73.28%	8,894	9.13%	4,010	4.11%	3,559	3.65%	5,479	5.62%	4,098	4.20%
RES	108,652	8.96%	100,007	8.24%	200,298	16.51%	322,245	26.57%	389,218	32.09%	92,540	7.63%

Table 9f: Estimated Cumulative Rate Impact, 2009-2015

Year	Cumulative Electric Rate Impact						
	DSM Cost Recovery	System 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%
2015	$74.7M	$131.2M	$141.5M	$10.4M	$85.1M	$2,767M	3.075%

Table 9g: Estimated Customer Bill Savings Range, 2009-2015

Year	Customers >1% Bill Increase		Customers 0-1% Bill Increase		Customers 0-2% Bill Savings		Customers 3-5% Bill Savings		Customers 6-15% Bill Savings		Customers more than 15% Bill Savings	
	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%
2015												
BUS	80,969	83.08%	1,521	1.56%	2,172	2.23%	2,283	2.34%	4,415	4.53%	6,103	6.26%
RES	207,475	17.10%	58,120	4.79%	137,772	11.36%	202,860	16.72	400,288	33.00%	206,445	17.02%

Compliance

Table 10: Reporting Requirements and Compliance

Item #	Compliance Point – Description	Statute / Rule / Proceeding Reference	Status Report Reference	Comments
ELECTRIC				
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, 2016.
2	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, Stipulation & Settlement Agreement, p.16, ¶11(b)	See Tables 4a - 6	$/kWh over lifetime and net economic benefits achieved by product in Cost-Effectiveness Section.
3	Public Service shall use the technical assumptions relating to the energy savings calculations for such measures actually installed during calendar years 2015 and 2016.	Proceeding No. 14A-1057EG, Stipulation & Settlement Agreement, p.17, ¶8	---	Deemed savings approved in Proceeding No. 13A-0773EG (2014 DSM Plan) were used to calculate prescriptive product achievements from 01/01/2015-07/31/2015 and those approved in Proceeding No. 14A-1057EG (2014 DSM Plan) were used to calculate prescriptive product achievements from 08/01/2015-12/31/2015, unless where amended via 60-Day Notice during 2015.

4	Use the net-to-gross ratios and the technical assumptions relating to incremental customer O&M savings (for prescriptive measures only), customer O&M costs (for prescriptive measures only), incremental customer capital costs (for prescriptive measures only), the deemed savings formulas and other technical assumptions set forth in the Appendix G for purposes of determining program and portfolio cost-effectiveness and for calculating annual portfolio net economic benefits based on measures actually installed during calendar years 2015 and 2016.	Proceeding No. 14A-1057EG, Stipulation & Settlement Agreement, p.17, ¶8	See Cost-Effectiveness and Financial Incentive Calculations sections	The avoided costs approved in Proceeding No. 13A-0773EG (2014 DSM Plan) were applied to product achievements from 01/01/2015-07/31/2015, and avoided costs approved in Proceeding No. 14A-1057EG (2015/16 DSM Plan) were applied to product achievements from 08/01/2015-12/31/2015.
5	All Participant O&M data should be treated as proprietary in the absence of a written agreement signed by the Participant authorizing disclosure.	Proceeding No. 08A-366EG, Stipulation & Settlement Agreement, p.8, ¶4	---	---
6	Do not include Participant O&M data in incentive calculations unless there is authorization to disclose such data.	Proceeding No. 08A-366EG, Stipulation & Settlement Agreement, p.8, ¶4	See Financial Incentive Calculations	----

7	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 the Commission and OCC at the Company's Colorado offices, pursuant to the following procedures: • 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. • PSCo shall maintain a log of persons, dates, times and documents reviewed. • Participant O&M data shall not be disclosed to any other party or by any other means, except after receipt of written authorization from the Participant.	Proceeding No. 08A-366EG, Stipulation & Settlement Agreement, p.9, ¶4	---	Participant O&M data has been neither requested nor disclosed to any external party.
8	Track the expenditures, energy savings, and paybacks associated with each approved project under the Self-Directed Custom Efficiency Program.	Proceeding No. 08A-366EG, Stipulation & Settlement Agreement, p.8, ¶3	See Evaluation, Measurement and Verification	---
9	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, Stipulation & Settlement Agreement, p.7, ¶3	---	Ongoing.
10	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, Stipulation & Settlement Agreement, p.8, ¶3	---	Ongoing.

11	All incentive payments must be included in the final TRC calculation. At the time of the annual report following the DSM performance year, the incentive amounts will be "proposed" versus "final." PSCo shall include the proposed incentive amounts in their annual report. Public Service will calculate a proposed incentive amount based upon its calculation of the DSM savings achieved and costs incurred. Public Service's annual report will delineate the DSM activities that occurred, the costs and benefits related to these activities, and the net economic benefits. Based upon the percentage of the DSM goal achieved, a percentage of the net economic benefits will comprise Public Service's incentive payment. That value, along with the disincentive offset, will also be presented in the annual report, as a proposed performance incentive. This is the procedure that Public Service is to follow in its annual DSM report. The Decision does not require that the incentive amount be recalculated after the inclusion of the incentive payment amounts into the final TRC calculation.	Proceeding No. 07A-420E, Decision No, C08-0560, p.37, ¶117 Proceeding No. 071-420E, Decision No. C08-0769, pg. 19-20, ¶63	See Financial Incentive Calculations	---
12	For any low-income program that achieves a TRC<1.0, the costs and benefits may be excluded from the calculation of net economic benefits. The energy and demand savings may be applied toward the calculation of overall energy and demand savings, for the purposes of determining progress toward annual goals.	Proceeding No. 07A-420E, Decision No, C08-560, p.44, ¶140	See Financial Incentive Calculations	---
13	Beginning with the 2012 Annual Status Report, we will quantify and track certain costs incurred through the use of third-party providers.	Proceeding No. 10A-554EG, Decision No. C11-0442, p. 52, Ordering ¶4	See Executive Summary	---

14	"Indirect impact programs" (customer education, market transformation and pilot programs) do not need to individually pass a TRC test, but need to be incorporated into the overall costs used to calculate the TRC of the DSM portfolio. Market Transformation efforts shall have a presumptive TRC of 1.0 so as to not adversely affect the financial incentive calculation.	Proceeding No. 07A-420E, Decision No. C08-0560, pg 44-45, ¶141	See Indirect Program and Financial Incentive Calculations	Included within Report filed April 1, 2016.
15	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.	Proceeding No. 13A-0773EG, Decision No. R13-1204-I, Para. 18, 2014 DSM Plan	See Financial Incentive Calculations	This proration methodology has been applied to 2015.
16	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-to-gross 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-to-gross ratios which are approved here.	Proceeding No. 13A-0773EG, Decision No. R13-1204-I, Para. 19, 2014 DSM Plan	See Evaluation, Measurement & Verification	This proration methodology has been applied to 2015.
17	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	This approach has been applied to 2015; the break-down is included.

18	Launch a Custom Workbook application for EMS that uses Microsoft Excel in 2015.	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(b)(i)	---	See Company website: http://www.xcelenergy.com/Energy_Solutions/Business_Solutions/Customized_Solutions/Energy_Management_Systems
19	Contract for one or more Strategic Energy Management Consultants (SEMCs), selected through a competitive RFP, to provide program implementation consulting services, including implementation of the Evaluation Measurement and Verification (EM&V) protocol for the EMIS measure, and individual project consulting services.	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(b)(iii)	---	RFI sent to 11 consultants; RFP issued to top six in June 2015. Two consultants chosen on 9/2/2015.
20	Include some training on the Western Cooling Control device during QI Training Session in 2015.	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(e)	---	Training completed on 4/22/2015.
21	Offer LED light bulbs as an a la carte purchase option, at cost of LED bulbs offered in Home Lighting & Recycling.	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(f)	---	A la carte LEDs were offered at an average purchase price of $6.33 during 2015.
22	Add LED bulbs to Low-Income Energy Savings Kits and Single-Family Weatherization via 60-Day Notice, if cost-effective; share results at the Q3-2015 DSM Roundtable.	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(h)	---	60-Day Notice implemented on October 31, 2015. Results presented to DSM Roundtable on November 4, 2015.
23	Distribute a bi-monthly DSM Pilot/Product Development e-mail update.	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(j)(i)	---	Distributed to DSM Roundtable distribution list on 10-27-2015 and 12-18-2015.

24	Provide PD Scoring Matrix to DSM Roundtable by May 2015.	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(j)(iii)	---	Presented to DSM Roundtable Meeting on 2-11-2015.
25	Offer to hold at least two meetings with interested stakeholder, for each pilot that the Company decides to pursue, prior to 60-Day Notice.	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(j)(iv)	---	One new pilot launched via 60-Day Notice in 2015—ENERGY STAR Retail Products Platform (ESRPP) Pilot. Stakeholder Meeting #1 held via webinar on 10-29-2015; Meeting #2 was offered and declined.
26	Hold a meeting with EEBC, and other interested stakeholders, to discuss the DSM participation analysis, before June 1, 2015	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(k)(i)	---	Meeting held April 30, 2015.
27	Hold a meeting with EEBC, and other interested stakeholders, to discuss efforts to reduce non-participants, before September 1, 2015	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(k)(ii)	---	Meeting held August 31, 2015.
28	Support up to five Denver buildings to test a new benchmarking tool being developed as part of the DOE Better Buildings Energy Data Accelerator.	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(m)	---	More than five buildings retrieved data through the City Energy Project in 2015.
29	Re-allocate $25,000 to support energy codes training, in consultation with interested stakeholders.	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(n)	---	Conference call held with stakeholders on 10-8-2015. Stakeholder inputs reflected in contract executed with Colorado Code Collaborative in December 2015.

30	Bring together Settling Parties for a meeting to discuss ideas to improve the Company's current demand response programs, before July 1, 2015.	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(o)	---	Meeting held June 23, 2015.
31	Bring together Settling Parties for a second meeting to discuss the current Third-Party Demand Response program contract set to expire at the end of 2016, as well as the overall Public Service electric system conditions.	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(o)	---	Meeting held November 18, 2015.
32	Maintain low-income efficiency programs from 2015 to 2020 at existing levels.	Decision No. C14-0731, Para. 75	See Tables 15a and 15b	The 2014 DSM Plan forecast for Low-Income Program combined electric and natural gas expenditures was $6.249 million. The 2015 combined electric and natural gas expenditures for the Low-Income Program were $6.262 million.
NATURAL 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, 2016.
2	Each utility shall also file an annual DSM report and an application for bonus.	Rule 4750(b)	---	Included with Report filed April 1, 2016.
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 $12.8 million on its natural gas DSM programs. This surpassed the statutory expenditure targets – $7,579,548 (2% of gas base rate revenues), and $5,935,681 (0.5% of total gas revenues).

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 2015 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 2015 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	---

9	The utility may file an application for bonus, pursuant to rule 4760. The application for bonus shall include the utility's calculation of estimated bonus applying the methodology set forth in this rule to the utility's actual performance. (II) As a threshold matter, the utility must expend at least the minimum amount set forth in rule 4753 (g)(I), except during a phase-in period as set forth in rule 4753 (g)(III), in order to earn a bonus. (III) The bonus amount is a percentage of the net economic benefits resulting from the DSM plan over the period under review. The percentage value is the product of the two factors: (A) The Energy Factor is determined by the percentage of the energy target achieved by the utility. The energy factor is zero plus 0.5% for each one percent above 80 percent of the energy target achieved by the utility. (B) The Savings Factor is the actual savings achieved divided by the approved savings target. Each of these quantities is expressed in dekatherms saved per dollar expended. (IV) The following is provided as an example of the bonus calculation, using these illustrative numbers: utility achieves 106 percent of its energy target; the utility's savings target is 15,000 dekatherms per $1 million expended, and the utility's actual savings is 18,000 dekatherms per $1 million.	Rule 4754(f)	See Financial Incentive Calculations	Included within Report filed April 1, 2016.
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	Spend no less than $12 million annually on gas DSM in 2015 and 2016.	Decision C14-0731, Para. 69	See Table 5b	Natural gas DSM expenditures in 2015 totaled $12.8 million.

12	Maintain low-income efficiency programs from 2015 to 2020 at existing levels.	Decision No. C14-0731, Para. 75	See Tables 15a and 15b	The 2014 DSM Plan forecast for Low-Income Program combined electric and natural gas expenditures was $6.249 million. The 2015 combined electric and natural gas expenditures for the Low-Income Program were $6.262 million.
13	Provide an update on participation and budget expenditure for ENERGY STAR New Homes and Home Performance with ENERGY STAR during DSM Roundtable meetings in 2015.	Proceeding No. 14A-1057EG, Settlement Agreement, Para. 5(g)	---	Updates provided at meetings held on Feb. 11, May 6, Aug. 19, and Nov. 4. Presentation slides available here: http://www.xcelenergy.com/Company/Rates_&_Regulations/Filings/Colorado_Demand-Side_Management

Financial Incentive Calculations

Electric Financial Incentive: Summary

In calendar year (CY) 2015, the Company operated its DSM programs under technical assumptions from two different DSM Plans—the 2014 Plan-year[12] and the 2015 Plan-year.[13] Similarly, each Plan-year had a unique financial incentive mechanism. The Commission approved financial incentive mechanism for each Plan-year, included a "Disincentive Offset" and "Performance Incentive."

Table 10 below summarizes the Company's Financial Incentive for electric DSM based upon the Company's achievement of 405.7 GWh and (adjusted) net benefits of $110,939,694 in CY 2015.

Table 10: Summary of 2015 Electric Incentive

	Amount
Disincentive Offset	$5,000,000
Performance Incentive	$6,064,703
Total	**$11,064,703**

Disincentive Offset

A Disincentive Offset of $5.0 million is awarded because the Company achieved 100% of the annual energy savings goal—that threshold is the same for the Incentive mechanism ordered in Decision No. C11-0442 and the revised mechanism ordered in Decision No. C14-0731.

Performance Incentive

The Performance Incentive for the 2014 Plan-year was 1% of net economic benefits[14] 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 continued 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 Performance Incentive for the 2015 Plan-year is 5% of net economic benefits[15] when the Company achieves 100% or more of the energy savings goal.

Electric Financial Incentive: Calculation

The combination of the pre-tax Disincentive Offset and the Performance Incentive cannot exceed $30 million. The total financial incentive is recovered in the year following the 2015 performance year. The full calculation of the Company's financial incentive for electric DSM is shown in Table 11 below.

[12] Refers to CY 2015 impacts prior to the 2015 DSM Plan effective date of August 1, 2015.
[13] Refers to CY 2015 impacts after the 2015 DSM Plan effective date of August 1, 2015.
[14] A minor adjustment is made for market transformation programs, allowing for the costs of these programs to be excluded from net economic benefits.
[15] 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 2015 Electric DSM Incentive

Disincentive Offset (Grossed-up for Income Taxes)	**$5,000,000**
Performance Incentive Calculation	
Approved 2015 kWh Goal[16]	390,666,667
kWh from YE Achievements	405,702,592
Net Economic Benefits from YE Achievements	**$108,346,914**
Net Economic Benefits Adjustments	
Total Low-Income Allowance	$483,800
Total Market Transformation Allowance from YE Achieve.	$2,108,980
FINAL Net Benefits from YE Achievements	**$110,939,694**
% of Goal Achieved	104%
% of Net Benefits Awarded	5.47%
Performance Incentive	**$6,064,703**
Total Incentive - Subject to CAP	$11,064,703
Incentive Cap (Subject to Hard Cap of $30,000,000)	$30,000,000
Total 2015 Proposed Electric Financial Incentive Pre-Tax	**$11,064,703**

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 2015, the natural gas incentive is calculated to be $2,760,103. This bonus is less than the expenditure cap of $3,220,129 and the net benefits cap of $5,034,088. In addition, the Company is filing for an acknowledgement of lost revenues associated with gas DSM programs of $528,804 for a total award of $3,288,907. The full calculation of Public Service's 2015 Natural Gas Incentive is detailed in Table 12 below.

[16] See discussion of goal proration below.

Table 12: Public Service 2015 Natural Gas Bonus and Acknowledgement of Lost Revenue

Approved Energy Target (Goal)	608,244	Dekatherm per year		
Energy Target Achieved - YE Forecast	598,015	Dekatherm per year		
% of Energy Target Achieved	98.3%			
			Dth	**Spend**
Approved Savings Target	46,322	Dekatherm per $1M	608,244	$ 13,130,855
Savings Target Achieved - Portfolio Total	46,428	Dekatherm per $1M	598,015	$ 12,880,516
Savings Target Achieved - Low-Income Program Adjustments				
Energy Savings Kit			9,334	$ 94,203
Multi-Family Weatherization			10,955	$ 943,200
Non-Profit Energy Efficiency			3,321	$ 464,112
Single-Family Weatherization			36,765	$ 1,673,327
Total Savings Target Achieved - Low-Income Program Adjustments	19,017	Dekatherm per $1M	60,375	$ 3,174,843
Savings Target Achieved - Adjusted*	55,394	Dekatherm per $1M	537,640	$ 9,705,673
Total DSM Expenditures	$12,880,516			
Energy Factor	9.0%			
Savings Factor	1.195862502			
% of Net Benefits Awarded	10.8%	= Energy Factor * Savings Factor		
Net Economic Benefits Achieved	**$25,170,440**			
Net Economic Benefits Adjustments				
Energy Savings Kit	$ -			
Multi-Family Weatherization	$ 285,504			
Non-Profit Energy Efficiency	$ 188,986			
Single-Family Weatherization	$ -			
Low-Income Allowance from Plan	$ 474,489			
FINAL Net Economic Benefits Achieved	**$25,644,929**			
Incentive Cap	$3,220,129	= 20% of net economic benefits ($5,034,088) or 25% of expenditures ($3,220,129), whichever is less		
Total 2015 Proposed Gas Financial Incentive Pre-Tax	**$2,760,103**			
Business/Residential Allocation		**%**		
Business Actual Savings (Dth)	147,467	25%		
Residential & Low Income Actual Savings (Dth)	450,548	75%		
Total Savings	**598,015**	**100%**		
Allocated Bonus				
Business	680,624			
Residential & Low Income	2,079,479			
Total	**2,760,103**			
Acknowledgement of Lost Revenue [ALR] Calculation:				
Dollar Value Per Therm				
Business (Non-residential)	$ 0.10192			
Residential	$ 0.08401			
12-Month Therm Reduction Impact From 2015 Programs				
Business (Non-residential)	1,474,666			
Residential	4,505,484			
ALR Totals				
Business (Non-residential)	$ 150,304			
Residential	$ 378,500			
Total ALR	**$ 528,804**			
Total Gas Bonus and ALR	**$ 3,288,907**			

CY 2015 Proration

Decision No. C13-1493-I, Ordering Paragraph 4 authorized the Company to continue the 2014 DSM Plan into calendar year (CY) 2015, due to timing of Proceeding No. 13A-0686EG.

For 2015, the Company's electric energy savings goal was pro-rated based on the portion of the year that the interim extension of the 2014 DSM Plan was in effect and the portion of the year that the 2015 DSM Plan was approved for. The 2015/16 DSM Plan became effective on August 1, 2015 under Decision No. C15-0735. Therefore, the net economic benefits for savings achieved from January 1 – July 31, 2015 were measured based on the avoided costs and technical assumptions approved in the 2014 DSM Plan (Proceeding No. 13A-0773EG); and starting on August 1, 2015, net economic benefits were determined based on the avoided costs and technical assumptions approved in the 2015 DSM Plan (Proceeding No. 14A-1057EG).

The Company's overall performance for CY 2015 is compared against the corresponding prorated energy savings goals. The following tables provide the calculation of the prorated CY 2015 electric and natural gas savings goals.[17]

Prorated Electric Goal

2014 Goal (A)	2015 Goal (B)	Duration (Months) of 2014 Plan-year (C)	Duration (Months) of 2015 Plan-year (D)	Prorated 2015 Electric Goal
384	400	7/12 = 58.33%	5/12 = 41.67%	(A*C) + (B*D) = 390.7

Prorated Natural Gas Goal

2014 Goal (A)	2015 Goal (B)	Duration (Months) of 2014 Plan-year (C)	Duration (Months) of 2015 Plan-year (D)	Prorated 2015 Natural Gas Goal
623,543	586,825	7/12 = 58.33%	5/12 = 41.67%	(A*C) + (B*D) = 608,244

The proration of the goals follows the methodology presented in the *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) filed in Proceeding No. 13A-0773EG on September 19, 2013, and approved in Decision No. R13-1204-1. The CY 2015 proration was also accounted for in the calculation of the Company's electric Performance Incentive. The Commission recognized that the 2015 DSM Plan was not likely to be implemented until after January 1, 2015 and, therefore, the continuation of the Incentive mechanism approved in Proceeding No. 10A-554EG would be necessary, as noted at Paragraph 12 of Decision No. C14-0997.[18] CY 2015 achievements were allocated, based on the number of months each Plan was in place, using the applicable Incentive mechanism for each period of savings. The percentage of goal achievement was applied under each mechanism to determine the Disincentive Offset and percentage of net benefits awarded.

[17] Provided to stakeholders following 2015/16 DSM Plan approval, at the August 19, 2015 DSM Roundtable Meeting, see slide 4: http://www.xcelenergy.com/staticfiles/xe/Regulatory/Regulatory%20PDFs/CO-DSM/CO-DSM-Aug-19-2015-Meeting-Q2-2015-Presentation.pdf

[18] Proceeding No. 13A-0686EG

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 2015, the electric products in the Company's Business Program achieved 88% of the net generator kWh target. Much of the performance deficit was due to lower than expected achievement by the Lighting Efficiency and Process Efficiency products, caused mainly by large commercial and industrial customer sales cycles pushing into 2016. Lighting Efficiency was, nonetheless, the largest contributor to business program achievements; followed by the New Construction and Process Efficiency products. Additionally, Compressed Air Efficiency, Cooling, Data Center Efficiency, New Construction, Lighting – Small Business, and Motor & Drive Efficiency all 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: 2015 Business Program – Electric DSM Products (Target to Actual)

	Budgets / Targets				Expenditures / Achievements			
Business Program - 2015	**Electric Budget**	**Net Gen. kW**	**Net Gen. kWh**	**Electric MTRC Test Ratio**	**Electric Expenditures**	**Net Gen. kW**	**Net Gen. kWh**	**Electric MTRC Test Ratio**
Commercial Refrigeration Efficiency	$1,755,953	819	8,906,511	1.43	$1,044,251	467	4,298,367	1.29
Compressed Air Efficiency	$773,251	496	3,173,698	1.48	$686,099	561	3,977,031	1.59
Computer Efficiency	$916,554	1,228	9,147,862	1.50	$433,972	579	4,307,873	1.45
Cooling	$3,454,564	3,076	9,842,168	1.46	$3,853,095	2,308	11,432,861	1.35
Custom Efficiency	$1,622,590	871	7,745,756	1.34	$1,320,622	783	7,325,811	1.09
Data Center Efficiency	$1,286,182	863	8,310,341	1.85	$1,572,345	942	13,902,972	1.59
Energy Management Systems	$1,289,835	210	8,185,221	1.54	$1,001,406	40	7,093,365	1.51
Heating Efficiency	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LED Street Lights	$31,000	0	1,000,960	1.33	n/a	n/a	n/a	n/a
Lighting Efficiency	$12,161,368	12,570	81,922,710	1.71	$11,956,270	11,096	65,565,649	1.36
Lighting - Small Business	$3,625,780	3,128	20,754,224	1.69	$4,682,524	3,464	21,026,070	1.31
Motor & Drive Efficiency	$3,015,493	1,701	11,100,875	1.65	$3,139,981	2,252	13,935,338	1.73
New Construction	$11,622,121	11,441	43,383,388	1.39	$9,422,731	10,901	47,451,897	1.40
Process Efficiency	$3,590,088	2,808	35,293,136	2.12	$2,394,339	2,522	20,232,098	3.61
Recommissioning	$979,014	350	6,449,641	1.30	$421,352	306	6,451,154	2.77
Self Direct	$898,997	864	5,676,889	1.54	$515,028	612	1,916,730	1.00
Business Program Total	**$47,022,790**	**40,424**	**260,893,380**	**1.62**	**$42,444,014**	**36,832**	**228,917,215**	**1.54**

Natural Gas

In 2015, the natural gas products in the Company's Business Program achieved 77% of the Dth savings target. Lower than expected achievement in the New Construction programs contributed to the shortfall. Energy Management Systems greatly exceeded its natural gas savings forecast. Natural gas expenditures for the Business Program overall were slightly over budget due to increased year-end marketing efforts.

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

Table 13b: 2015 Business Program – Natural Gas DSM Products (Target to Actual)

	Budgets / Targets					Expenditures / Achievements				
Business Program - 2015	**Gas Budget**	**Net Annual Dth Savings**	**Annual Dth/$M**	**Gas MTRC Test Net Benefits**	**Gas MTRC Test Ratio**	**Gas Expenditures**	**Net Annual Dth Savings**	**Annual Dth/$M**	**Gas MTRC Test Net Benefits**	**Gas MTRC Test Ratio**
Commercial Refrigeration Efficiency	$22,472	2,234	99,418	$265,871	10.82	$13,095	1,272	97,123	$165,278	11.88
Compressed Air Efficiency										
Computer Efficiency										
Cooling										
Custom Efficiency	$75,044	4,775	63,625	$105,689	1.41	$148,965	4,719	31,676	$257,057	2.08
Data Center Efficiency										
Energy Management Systems	$50,549	3,045	60,232	$133,750	1.94	$61,521	9,606	156,135	$148,063	1.21
Heating Efficiency	$369,899	17,193	46,480	$326,316	1.39	$651,827	14,820	22,736	-$221,328	0.86
LED Street Lights										
Lighting Efficiency										
Lighting - Small Business	$6,329	2,175	343,587	$278,401	30.37	$96	400	4,172,489	$56,782	86.66
Motor & Drive Efficiency										
New Construction	$1,459,429	154,310	105,733	$2,133,311	1.24	$1,404,025	110,067	78,394	$3,557,955	1.58
Process Efficiency										
Recommissioning	$29,587	3,351	113,246	$31,595	1.38	$21,085	3,081	146,104	$94,454	3.97
Self Direct										
Business Program Total	**$2,013,309**	**187,082**	**92,923**	**$3,274,933**	**1.32**	**$2,300,614**	**143,964**	**62,576**	**$4,058,261**	**1.47**

Business Products

The following provides a brief summary of the performance of each DSM business product in 2015.

Commercial Refrigeration Efficiency

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 installation of complimentary energy saving measures, identification of prescriptive measures, and proactive project management to assist customers in implementing energy efficient measures.

Deviation from Target

The Commercial Refrigeration Efficiency product achieved 48% of its filed electric energy savings target and 57% of its filed natural gas savings target in 2015. The Company believes that lower impacts were a result of fewer than anticipated prescriptive saving opportunities identified through on-site assessments. Throughout the year several efforts were employed to improve participation, including a 20% bonus rebate implemented in the second quarter through November 30, as well as Digital Campaigns, Call Campaigns, and Leave Behind Kits for convenience stores. Similarly, liquor stores received a Mailer and Leave Behind Kits, and the Company instituted a Call Campaign. Other promotions deployed included: Grocery Store Mailer, a Restaurant Call Campaign, Contractor and Customer Expos, a Refrigeration Trade Partner Event, Lighting – Small Business Program coordination efforts, the Green Business Showcase, association events and presentation and Trade partner tradeshows.

60-Day Notice(s)

In October 2015, the Company posted a 60-Day Notice to add a new "close the case" measure to the product, but did not see any participation in the measure before year-end.

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.

The Company completed a case study in 2015 on a high-impact project completed in Littleton: http://www.xcelenergy.com/staticfiles/xe-responsive/Admin/Managed%20Documents%20&%20PDFs/CO-Bus-Compressed-Air-Norgren-Case-Study.pdf

Deviation from Target

The product achieved 125% of its electric savings target with expenditures under budget. The product capitalized on a strong number of completed studies (24) and implementation of custom opportunities from previous year studies. From the completed studies, 15 of the 24 studies were large, account-managed customers. The product achieved its best savings from prior year efforts resulting in customers fixing over 50% of their previously identified leaks.

Changes in 2015

The Compressed Air Efficiency product now offers a horsepower reduction rebate within the prescriptive component. Replacement of an existing compressor unit <50hp may be lowered by up to 20hp to qualify. HP reduction rebate will require documented removal of a compressor.

Computer Efficiency

The Computer Efficiency program provides prescriptive electric offerings to business customers who install PC Power Management and Virtual Desktop Infrastructure (VDI). These products are marketed directly to business customers through Trade Partner and sales channels.

Incentives are also offered directly to desktop personal computer (PC) manufacturers that design, manufacture, and sell PCs 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 the various PC manufacturers to track equipment sold in our territory.

Deviation from Target

The product fell short of its participation and energy savings targets for 2015. As consumers move to more mobile computing options (tablets, laptops) the market is seeing a slight decline in PC sales. The Company continues to foster relationships with PC manufacturers through the 80 PLUS program (product specification). The product continues to grow awareness of VDI and PC Power Management rebates through marketing and training opportunities.

60-Day Notice(s)

In October, the Company added High Efficiency Power Supplies to the product, for 80 Plus Silver qualified power supply servers. Manufacturers are incented $5-$20 for installing Gold, Platinum, and Titanium level power supplies in servers shipped to Xcel Energy commercial customers. The new measure did not see any participation before year-end.

Cooling

The Cooling product offers rebates to customers who purchase and install selected high-efficiency (HE) cooling equipment and incentives to distributors to stock and sell selected HE equipment. Rebate dollars and study funding are offered to assist in "buying down" the incremental cost associated with purchasing the HE equipment, and to shorten the associated payback period. In addition, customers may qualify for a mix of prescriptive rebates for common HE equipment and custom rebates for newer, system-based HE 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 exceeded its electric energy savings target for 2015.

Changes in 2015

The Company first launched the Midstream Distributor incentive program (noted above) in 2015.

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 reached 95% its electric savings target in 2015. The minor shortfall was due to several projects pushing into 2016. The product did surpass its natural gas target.

Data Center Efficiency

The Data Center Efficiency product offers study and implementation 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 2015. The successes of 2015 were largely driven by projects involving centrifugal chillers, plate and frame heat exchangers, and electrically commutated (EC) 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 a strong 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.

Deviation from Target

The EMS product achieved 87% of its electric energy savings target, with electric expenditures under budget. Two large projects expected to be completed in 2015, which would have led to target achievement, unfortunately did not finish before year-end. While the product's energy savings (kWh) performed well, kW was significantly lower than the filed target due to participating projects implementing off peak savings measures. The product exceeded its natural gas savings target by 316% due to two large projects, one with multiple premises.

Changes in 2015

Energy Information Systems (EIS) was added to the product as a new measure mid-year, when the 2015/16 DSM Plan was approved. The EIS offering will provide large commercial and industrial customers strategic energy management consulting and the ability to visualize energy data to identify and achieve deeper energy savings, including in new behavioral and low-cost/no-cost areas.

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, case studies, and conducting the bi-annual Heating Advisory Board.

A case study for Saint John's Cathedral was developed in 2015 which highlighted the replacement of 56 steam traps and the addition of pipe insulation, resulting in 25,000 therms of savings annually and a short payback period. The case study was communicated to customers via newsletter and can be found at: http://www.xcelenergy.com/staticfiles/xe-responsive/Admin/Managed%20Documents%20&%20PDFs/CO-Bus-Heating-Efficiency-Case-Study-Saint-Johns-Cathedral.pdf.

Deviation from Target

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

60-Day Notice(s)

The Company will be expanding the Heating Efficiency product offering to add its first electric measure in January 2016. The Company filed a 60-Day Notice in October 2015 to add a rebate for electronically commutated motors (ECMs) on a furnace fan. The rebate will be available as either a retrofit or new furnace option. Electric savings will be realized in both the heating and cooling seasons due to optimized airflow.

LED Street Lights

The Company's LED Street Lights product captures energy savings for local municipalities on the Street Lighting Service (SL) Rate by replacing legacy Company-owned street lights with LED fixtures.

Deviation from Target

The Company's street lighting rate was not finalized until January 1, 2016; and therefore, there were no participants in 2015.

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 lighting and redesign rebates are also available for energy-saving lighting solutions not currently available as prescriptive rebate measures, but 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 2015 by twenty percent. Many customers are interested in retrofitting to LED technology but are anticipating the fixture costs drop, and are, therefore, waiting to make the investment. Lower average savings per project and a slower than anticipated launch of new prescriptive rebates into the marketplace also contributed to the product's savings shortfall. The product ran a 20% lighting rebate bonus throughout most of the year to encourage greater customer participation. Though this bonus supported achievements, the product did not meet its target.

Changes in 2015

In 2015, new LED rebate measures were added to the retrofit and new construction prescriptive product offerings. These new rebate measures included LED area lights, customer-owned street lights, and integral sensors. Also new in 2015 was the midstream rebate offering of LED lamps through the distributor channel—known as "Business LED Instant Rebate."

60-Day Notice(s)

In October 2015, the Company posted a 60-Day Notice to expand the product's prescriptive LED rebates.

Lighting – Small Business

The Lighting – Small Business product offers free lighting audits and free direct installation of lighting and non-lighting measures for customers under 100 kW demand, as well as recommendations for energy-saving measures, special services, and attractive 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 product achieved 104% of its electric energy savings target but fell short of its natural gas savings target in 2015. This was the first year that the product had a natural gas component and due to the mid-year launch of the 2015 DSM Plan, there was limited time for the product to attract natural gas savings projects.

Changes in 2015

The Company began offering direct installation of lighting and non-lighting measures within the Lighting – Small Business product in 2015. While onsite for a lighting assessment, the third-party implementer performs free installation of the select energy savings measures including select screw-in LED lamps and aerators in public restrooms and kitchen sinks.

60-Day Notice(s)

Corrections to the LED Instant Rebate deemed savings were made via 60-Day Notice in late 2015; along with that change, the Company introduced prescriptive rebates for LED Bay lighting and LED Linear tubes.

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 26% above target while expenditures were only 4% over budget. On average, projects continued to decline in average horsepower in 2014, as many of the larger prescriptive projects within the territory had already been captured. However, achievement from small customers grew by 5% over the prior year, and small customers' proportion of the total achievement has continued to increase. Marketing efforts focused on VFDs within small businesses and office buildings, and VFD participation was strong within those segments.

Changes in 2015

As of 2015, the Company discontinued prescriptive incentives for all NEMA Premium® motors, as their efficiency levels had become the industry standard.

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, the Company is helping 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 2015. 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 in just one application. The EEB process provides preliminary rebate amounts per measure, giving the customer the tools to make early decisions to influence efficient equipment choices

In 2015, the Company received accolades from E Source for developing a unique, automated tracking system for the EDA component of the product to improve cost-effectiveness and increase availability to more customers. In addition, the U.S. Department of Energy awarded Xcel Energy and its partners funding to design, develop, and deploy a pilot open source technology platform that links a growing suite of open source building analysis tools and solutions to deliver cost-effective energy savings of at least 20% in 300 commercial buildings in various states.

Deviation from Target

The product exceeded its electric savings target in 2015, but slightly missed the natural gas savings target due to a few large projects delaying construction. Improvements in the economy have 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.

60-Day Notice(s)

The Company posted a 60-Day Notice in October 2015 to clarify the net-to-gross (NTG) values used for the New Construction product. NTG is applied to individual projects based on the start date of the project.

Process Efficiency

Process Efficiency targets energy-intensive processes at large facilities with 2 GWh or more of potential energy savings and industrial customers with a minimum annual usage of 2 GWh. 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 additional conservation measures.

The Process Efficiency product is delivered in 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 did not meet its 2015 electric energy savings targets, reflecting delays in implementation of customers' projects. Expenditures for the product reflected this decrease in project implementation. In spite of not meeting the savings target the product continues to realize a very favorable MTRC, which demonstrates the overall value of this in-depth service.

Recommissioning

The Recommissioning product is designed to assist electric and/or natural gas business customers in improving the efficiency of their existing building operations by identifying 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 100% of its electric energy savings target and 92% of its natural gas savings target in 2015. Electric and natural gas expenditures were less than the filed budget, due, in large part to a number of process efficiencies and to customers implementing "true" recommissioning measures (with less than one year simple payback).

Self Direct

The Self Direct 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 energy savings 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 processing.

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 2015 electric energy savings targets due to several large projects that were forecasted for completion but postponed by customers until 2016. Although the forecast is based on pipeline information, actual achievement is dependent on the customers' pace of project completion.

Residential Program

The Residential Program serves customers who live in single-family dwellings, apartments, or 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 2015, the Residential Program far exceeded its targeted electric energy savings within the filed budget. More than half of the residential products exceeded their electric energy savings targets, with a few products such as Evaporative Cooling and Home Performance with ENERGY STAR falling short of expectations due to certain HVAC seasonal equipment sales and usage trends. The Home Lighting & Recycling product led performance in the residential electric segment, with more than 420,000 participants, resulting from successful retail promotions and advertising.

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 Actual)

	Budgets / Targets				Expenditures / Achievements			
Residential Program - 2015	**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 Efficiency Showerhead	55,455	54	706,159	7.98	62,984	80	1,367,484	10.68
Energy Feedback Residential	3,212,779	12,744	14,381,570	1.78	3,155,772	6,407	26,841,827	0.92
ENERGY STAR New Homes	813,717	869	2,535,469	1.38	840,100	1,359	3,469,361	1.69
Evaporative Cooling	2,993,071	5,641	5,078,655	5.89	1,954,210	3,734	2,392,160	5.21
High Efficiency Air Conditioning	2,615,406	2,283	2,058,796	0.80	3,528,870	3,433	2,597,417	0.76
Home Energy Squad	346,156	222	522,927	1.65	78,688	7	31,708	0.28
Home Lighting & Recycling	12,053,117	14,636	98,760,793	2.11	11,458,751	17,534	120,224,418	2.67
Home Performance with ENERGY STAR	362,031	288	594,532	1.05	205,564	176	344,435	0.93
Insulation & Air Sealing	84,548	150	179,911	0.97	132,948	261	330,023	0.91
Refrigerator & Freezer Recycling	1,282,631	458	4,008,195	1.50	1,526,418	521	4,569,097	1.54
Residential Heating	321,715	242	2,557,160	1.39	685,269	705	3,441,594	1.29
School Education Kits	1,448,430	454	4,106,097	1.50	1,396,997	434	4,390,372	1.32
Water Heating	37,224	22	111,307	0.82	18,851	10	83,167	0.98
Residential Program Total	**$25,626,280**	**38,062**	**135,601,572**	**2.28**	**$25,045,421**	**34,663**	**170,083,064**	**2.24**

Natural Gas

The Residential Program exceeded its natural gas savings target on budget in 2015. Energy Efficient Showerhead, School Education Kits and Water Heating in particular significantly exceeded their natural gas savings targets. Home Energy Squad fell short of its savings and spend targets due to a late product launch in the fall of 2015, and 2016 participation is expected to improve as awareness increases.

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					Expenditures / Achievements				
Residential Program - 2015	**Gas Budget**	**Net Annual Dth Savings**	**Annual Dth/$M**	**Gas MTRC Test Net Benefits**	**Gas MTRC Test Ratio**	**Gas Expenditures**	**Net Annual Dth Savings**	**Annual Dth/$M**	**Gas MTRC Test Net Benefits**	**Gas MTRC Test Ratio**
Energy Efficiency Showerhead	$641,217	43,555	67,926	$5,107,200	6.88	$571,205	65,045	113,874	$9,227,482	13.05
Energy Feedback Residential	$451,659	50,080	110,881	$252,451	1.56	$465,345	101,167	217,402	$186,046	1.40
ENERGY STAR New Homes	$2,598,853	121,307	46,677	$2,678,342	1.36	$2,541,609	115,197	45,324	$4,270,537	1.61
Evaporative Cooling										
High Efficiency Air Conditioning										
Home Energy Squad	$288,604	5,448	18,877	$55,266	1.16	$63,460	312	4,913	-$36,123	0.43
Home Lighting & Recycling										
Home Performance with ENERGY STAR	$415,724	16,176	38,911	-$492,333	0.72	$328,173	13,754	41,912	-$78,190	0.94
Insulation & Air Sealing	$289,297	16,102	55,659	-$274,020	0.83	$457,554	23,515	51,392	-$104,182	0.95
Refrigerator & Freezer Recycling										
Residential Heating	$725,665	41,771	57,562	$596,054	1.23	$859,685	39,821	46,321	$1,415,101	1.66
School Education Kits	$358,222	31,687	88,457	$3,813,603	8.25	$440,800	29,802	67,610	$4,702,173	8.76
Water Heating	$109,006	2,807	25,747	-$270,265	0.44	$137,297	4,881	35,549	-$456,444	0.48
Residential Program Total	**$5,878,245**	**328,933**	**55,958**	**$11,466,297**	**1.72**	**$5,865,127**	**393,494**	**67,090**	**$19,126,400**	**2.24**

Residential Products

The following provides a brief summary of the performance of each residential DSM product in 2015.

Energy Efficiency Showerhead

The Energy Efficiency Showerhead product has delivered reliable and cost-effective natural gas and electric savings to Public Service Company (PSCo) customers since 2009. Residential natural gas and combination gas and electric customers are eligible to receive a free kit—valued at $30—containing energy-efficient showerheads and aerators to help reduce their energy and water use costs. The product now offers customers more choices than before and continues to prove to be a popular energy saving solution. As installation rates remain steady from year to year, it's easy to see customers love taking advantage of this product. The product not only provides energy savings, but provides O&M savings which are equally beneficial to customers and the environment.

Recognizing that many customers have more than one shower and one-bathroom sink in their home, previous product participants were offered supplemental kits to retrofit a secondary showerhead and bathroom faucet aerator with energy efficient models. Additionally, new participants were offered the choice of a one- or two-bathroom kit to retrofit their current configuration, which also included a kitchen faucet aerator. Customers were provided with education and instructions for installing the units and later surveyed to determine the installation rates of each unit.

Deviation from Target

The product performed exceptionally well in terms of electric energy savings achievements, and also had notable achievements in natural gas savings. As the supplemental kits to past participants were a new offering in 2015, participation and installation rats were difficult to forecast. The electric product delivered 178% of its kWh target. The performance of the electric product is related to the number of electric and unknown water heater types self-reported by customers. The natural gas product performed within expectations at 116% of the filed Dth goal.

Changes in 2015

For the first time, the program offered customers a second showerhead via a marketing offer specific to their past participation. The offer included the additional showerhead and a combination of bathroom aerators dependent on the kit combination they received when they first participated in the program. Additionally, customers who had never participated were offered a kit to outfit one or two bathrooms, rather than assuming one bathroom as in the past.

Energy Feedback Residential

The Energy Feedback Residential product provides targeted communication of energy-use comparisons and information called the Home Energy Report to residential customers, including specific recommendations and feedback intended to motivate and educate customers on how to reduce their energy consumption. Customers receive new information with each report that is delivered, by mail, email, or a combination of both. An online version, referred to as My Energy, provides similar information along with supplemental energy-awareness and savings tools. Savings are determined by comparing the energy consumption of the participating "treatment group" (those receiving the reports) to a non-participating "control group." Realized energy savings increase gradually over time as behavior is impacted by treatment. Product savings are measured and reported to the Company each month by the third-party implementer.

Deviation from Target

Electric and natural gas savings greatly exceeded year-end targets. The primary driver for this achievement is the continuation of the pilot through mid-year, prior to approval of the 2015/16 DSM Plan. Demand reduction (kW) impacts came in significantly under target as a result of an incorrect forecast assumption, which assumed the average demand reduction would be equal across all participant groups, which was not the case. These unanticipated results will be used to help improve forecast accuracy in the future.

Changes in 2015

The pilot transitioned to full product upon approval of the 2015/16 DSM Pan, on August 1, 2015.

60-Day Notice(s)

The Company posted a 60-Day Notice in December 2014, which was implemented in January 2015, to begin the process for expanding participation in preparation for the pilot transition to a full product later in the year. The expansion effort grew the product from approximately 100,000 legacy customers at the end of 2014 to almost 480,000 customers in 2015.

ENERGY STAR New Homes

The ENERGY STAR New Homes (ESNH) product provides builders of single-family and small multi-family homes with an incentive to exceed local building codes and go beyond 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. Homes must achieve at least a 10% improvement over their local jurisdiction's energy code in order to qualify. All homes are evaluated and rated by an independent third-party Home Energy Rating System (HERS) rater. The Residential Energy Services Network (RESNET)-accredited HERS raters consult with homebuilders during the construction process and ensure the energy efficiency measures have been properly installed in the home. Homeowners benefit from lower energy bills, fewer maintenance concerns, higher resale value, and a more comfortable, quiet home.

Deviation from Target

The product remained open throughout the year and performed well; 2015 participation levels exceeded 2014 by 20%, but fell slightly under the 2015 target. Electric and natural gas expenditures were on target. Electric energy and demand saving exceeded year-end targets, with demand savings out performing by 21%. Three primary factors played a role in increased demand savings including; increased adoption of CFLs, larger homes participating, and increased participation in the higher better-than-code tiers. Natural gas savings ended the year slightly under target due to; lower than anticipated participation, increased adoption by local jurisdictions of higher efficiency energy codes that impacted baseline assumptions, and lower than forecasted natural gas savings on average for many of the better-than-code tiers.

Changes in 2015

Changes were implemented in 2015 to improve cost-effectiveness, with the intention to keep the product open all year. Changes were made in four areas:

1. Builder rebates were awarded based on the percentage energy improvement achieved over the local jurisdiction's building code. Prior to this, rebates were based on the final HERS Index achieved.
2. The ENERGY STAR certified rebate tier was eliminated and in its place, a $100 ENERGY STAR Certified bonus rebate was added.
3. The HERS rater incentive was lowered from $200 to $75 and is now categorized as an "administrative fee" rather than "incentive."
4. CFLs were added to the product as a new measure.

60-Day Notice(s)

In December 2014, the Company issued a 60-Day Notice to apply programmatic and related technical assumption changes to the ESNH product (as described above). The proposed changes were intended to decrease the likelihood that the product's natural gas budget would be depleted before the end of the calendar year, while maintaining cost-effectiveness.

The Company received feedback on the Notice from several external stakeholders, which led to some adjustments to the original Notice proposal, which included:

- Adopting two additional better-than-code tiers to include a broader range of participants; and
- Provide a rater incentive of $75 and categorize it as an "administrative fee." (Originally, the Notice proposed to reduce the fee—from $200 in 2014—to $0 starting in 2015).

The Notice changes took effect in late January 2015.

Evaporative Cooling

The Evaporative Cooling product provides a cash rebate to Public Service's residential electric customers who purchase and install energy-efficient evaporative cooling equipment, and incentives for trade allies to promote the product to their customers. 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. Customer rebates help reduce the up-front costs of choosing an efficient evaporative cooler to replace an existing, inefficient evaporative cooler or air conditioner, and higher rebates are available to lower the up-front costs of installing an evaporative cooler in a home that previously had no cooling. 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.

Deviation from Target

The product fell short of its 2015 electric energy savings target, and therefore ended the year under budget. Evaporative cooling manufacturers, distributors, trade partners and retailers all reported significantly lower unit sales, re-stocking orders, and customer interest in 2015. First-time-installed evaporative cooling units, especially Premium and Whole-House rebate tiers, fell significantly short of projections. Key trade partners reported customers delaying using their evaporative coolers until mid-summer, and many customers postponed replacing their evaporative cooling system due to less cooling need in 2015. Ultimately, increased rebates and customer and trade promotions did not sufficiently influence customers to take action in 2015.

Changes in 2015

The Company increased rebates in June, in response to lower participation and rebate volumes compared to previous years, and maintained mass- and targeted-marketing efforts

until the early Fall. Increased rebates slowed the decline in customer participation in the Standard tier. Higher rebates and trade incentives will continue to be leveraged in future years to reverse the trend of declining participation.

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 install the measures in order for the project to qualify for a rebate. The product consists of three major components: equipment rebates, trade-in rebates, and quality installation.

Deviation from Target

The product significantly over-achieved its electric energy savings target in 2015. This was due to strong participation, with the majority of the customers retiring their old A/C unit. Seventy-five percent of the rebated units had an EER of 12.5 or higher (representing a shift to the higher efficiency tiers, as noted below), which contributed to the product saving 1 MW of demand reduction over the filed target.

Product expenditures came in over budget to accommodate additional customer rebates and contractor incentives due to higher participation than forecasted. 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 2015

The Company updated the rebate tiers for qualified A/C and ASHP installations. The minimum Seasonal Energy Efficiency Ratio (SEER) requirement for a trade-in unit became 14.5 SEER. New equipment rebates require a minimum 15.0 SEER. Additionally, a $650 rebate was added for 17.0+ SEER units to encourage customers to install the highest efficiency units.

Home Energy Squad

The Home Energy Squad product offers energy-efficiency installation services and discounted equipment costs to customers who seek to improve their homes' energy efficiency and comfort levels, and lower their utility bills. The product had a successful track record in other Xcel Energy jurisdictions, and, therefore, was launched in Colorado in mid-2015.

For a small "trip fee," the Home Energy Squad product installs a number of moderate-impact, low-cost measures for combination natural gas and electric customers, and electric-only customers, at no cost; and offers additional "a la carte" measures at a discounted cost.

The product seeks to assist customers in overcoming barriers related to making energy efficiency improvements. Such barriers include confusion on which products are right for their home, product cost and payback, and finding qualified installers.

Deviation from Target

In 2015 the Home Energy Squad product did not achieve its natural gas or electric energy savings targets, and, correspondingly, remained under budget. The lower participation can be attributed to the fact that this is a brand new product which did not launch until late in Q3. Multiple promotional tactics were used to create awareness within the customer base and drive participation; however, the uptake was slower than initially expected. Late in Q4 the Company launched a limited-time sales promotion which led to an increase in signups.

Changes in 2015

New residential product in 2015.

Home Lighting & Recycling

The Home Lighting & Recycling product offers discounted prices, via upstream incentives to retailers and manufacturers on CFLs and LEDs, as well as an environmentally-friendly way to dispose of spent CFLs. Energy-efficient light bulbs 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 2015 through a variety of marketing channels, including television, radio, internet, print publications, bill inserts, and point-of-purchase displays. The Company sponsored two promotions with local sports teams. The Company also initiated several new sales promotions, community events, and light bulb "giveaways."

In 2015, the Company put more focus on LED bulbs, including through dedicated advertising, promotions, and events.

Deviation from Target

The product greatly exceeded its electric energy 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 more than 1.3 million units or 25% of the residential lighting portfolio.

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. Air sealing, attic insulation, and energy-efficient

lighting are three improvements that, if recommended through the audit, must be completed (at minimum) in order to receive a HPwES rebate.

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.

The Company promoted the program through consumer outreach (i.e., mailings and onserts) along with HVAC trade education and promotion.

Deviation from Target

HPwES underachieved its electric and natural gas savings targets in 2015 and came in under budget to the same extent. While the Company is still receiving the same energy savings per home, participation decreased from the prior year.

Insulation & Air Sealing

The Insulation and Air Sealing product offers prescriptive rebates in order to increase the energy efficiency in single-family homes and one-to-four unit residential properties. This product is available to combination electric and natural gas service customers, natural gas service residential customers, or electric service customers who heat their homes with electrically-powered baseboard heat. To qualify for the rebate, customers must have the insulation professionally installed by a contractor with a Building Performance Institute (BPI) certification, and must make air sealing improvements first, unless the house does not require additional air sealing improvements.

Deviation from Target

The product was not cost-effective in 2015, although it did achieve greater energy savings than anticipated, primarily as a result of the maturation of the participating trade partner expertise and greater participation by customers with low pre-improvement air sealing and insulation levels. Electric and natural gas expenditures exceeded expectations due to a first quarter bonus rebate under the 2014 DSM Plan and overall rebate increases effective in the 2015 DSM Plan.

Refrigerator & Freezer Recycling

The Refrigerator & Freezer 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 product over-achieved its electric savings target in 2015. Product expenditures were over budget to accommodate customer incentives. The success of the product is attributed to effective marketing campaigns throughout the year. The secondary refrigerator removal component of the product continues to be the majority (56%) of units recycled.

Residential Heating

The Residential Heating 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 and/or an Electronically Commutated fan Motor (ECM) uses less energy and lower monthly bills over the life of the equipment. The rebates lower the purchase price of the high-efficiency equipment and improve the project's payback.

ECM rebates are eligible when paired with a non-qualifying new furnace, (e.g. the popular 80% AFUE variable speed furnaces), increasing the number of eligible units.

Deviation from Target

The product achieved both its natural gas and electric energy savings target. The ECM measure had its first full year as an offering in 2015 and significantly exceeded expectations. Additional electric expenditures were correlated with the increased ECM participation. The gas budget was exceeded as a result of a fourth quarter rebate bonus for furnaces, and additional advertising expenditures.

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.

Deviation from Target

The product slightly exceeded the electric and natural gas savings targets in 2015, while remaining largely on budget. 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.

Water Heating

The Water Heating 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.

Participating customers reduce their natural gas and electricity usage and long-term operating costs.

Deviation from Target

The product exceeded its natural gas savings goals. Natural gas expenditures—primarily customer rebates and measurement and verification—were exceeded in line with energy savings. The product did not achieve its electric energy savings target, and, thus, remained under budget.

Product achievements are attributed to continued momentum in the marketplace, sustained product awareness, and effective, low-cost communication tactics.

Low-Income Program

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

Electric

In 2015, the Low-Income Program did not achieve its electric energy savings target due to shortfalls in Energy Savings Kit and Single-Family Weatherization, but the Program's 2015 expenditures stayed largely on budget. The Multifamily Weatherization and Non-Profit products exceeded their electric energy savings goals due to higher than forecasted participation.

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)

	Budgets / Targets				Expenditures / Achievements			
Low-Income Program - 2015	**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	$289,831	112	1,008,759	2.02	$230,807	94	1,020,466	1.87
Multifamily Weatherization	$816,964	252	1,917,554	1.12	$767,780	219	1,922,670	0.95
Non-Profit	$518,267	216	1,838,130	1.62	$766,776	430	1,900,171	1.22
Single-Family Weatherization	$1,402,432	219	2,350,230	0.98	$1,322,334	153	1,660,132	0.97
Low-Income Program Total	**$3,027,493**	**799**	**7,114,674**	**1.22**	**$3,087,697**	**895**	**6,503,439**	**1.09**

Natural Gas

In 2015, the Low-Income Program exceeded its natural gas savings target, and stayed on budget. In particular, the Single-Family Weatherization product delivered natural gas savings due to the strong performance of air sealing and weather-stripping, and ceiling and wall insulation measures in treated homes.

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					Expenditures / Achievements				
Low-Income Program - 2015	**Gas Budget**	**Net Annual Dth Savings**	**Annual Dth/$M**	**Gas MTRC Test Net Benefits**	**Gas MTRC Test Ratio**	**Gas Expenditures**	**Net Annual Dth Savings**	**Annual Dth/$M**	**Gas MTRC Test Net Benefits**	**Gas MTRC Test Ratio**
Energy Savings Kit	$116,186	8,623	74,217	$1,085,233	7.78	$94,203	9,334	99,088	$1,676,667	13.56
Multifamily Weatherization	$686,120	10,442	15,218	-$193,411	0.86	$943,200	10,955	11,614	-$285,504	0.85
Non-Profit	$309,044	2,429	7,860	-$173,982	0.69	$464,112	3,321	7,155	-$188,986	0.78
Single-Family Weatherization	$2,287,908	34,670	15,154	$643,122	1.16	$1,673,327	36,765	21,971	$2,010,475	1.68
Program Total	**$3,399,258**	**56,164**	**16,522**	**$1,360,962**	**1.22**	**$3,174,843**	**60,375**	**19,017**	**$3,212,653**	**1.54**

Low-Income Products

The following provides a brief summary of the performance of each low-income product in 2015.

Energy Savings Kit

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 2015, the kits included the following measures:

- 1.0 gpm bathroom faucet aerator
- 1.5 gpm kitchen faucet aerator
- 1.5 gpm high efficiency showerhead
- Eight compact fluorescent light (CFL) bulbs

Deviation from Target

The product slightly exceeded the electric and natural gas savings targets in 2015, while remaining under budget. Multiple offers were sent during the year to encourage participation. E-mail was utilized as a new channel to offer the kit to income-qualified customers. Installation rates continue to be a focus and remained in line with 2014 results.

60-Day Notice

A 60-Day Notice was posted in September 2015 to add an LED to the kit, removing one CFL, effective January 1, 2016.

Multifamily Weatherization

The Multifamily Weatherization product provides funding for a wide variety of natural gas and electric equipment retrofits, process improvements, facility audits and studies for low-income multifamily buildings. These buildings have common areas, greater square footage, more appliances and more potential retrofit measures than single-family homes.

The Company's rebates supplement Federal weatherization grants to produce incremental, cost-effective natural gas and electric savings. Each submitted project is evaluated using a custom analysis by the Company's energy efficiency engineers to determine cost-effectiveness. In some cases, prescriptive rebates are offered for retrofit measures when the equipment would otherwise be ineligible for inclusion in the custom project bundle, to offer greater flexibility.

Deviation from Target

The product exceeded its participation and electric and natural gas savings targets in 2015, with support from the third-party implementer, Energy Outreach Colorado (EOC). Electric

expenditures remained under budget while natural gas expenditures exceeded the budget due to funding of higher cost measures such as boilers for space heating and distributed hot water, insulation, and windows in large multifamily buildings.

Non-Profit

The Non-Profit product provides funding for a wide variety of energy-efficient 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's rebates supplement weatherization grants and other funding to produce incremental, cost-effective natural gas and electric savings for qualified non-profit facilities. Each submitted project is evaluated using a custom analysis by the Company's energy efficiency engineers to determine cost-effectiveness. In some cases, prescriptive rebates are offered for retrofit measures when the equipment would otherwise be ineligible for inclusion in the custom project bundle, to offer greater flexibility.

Deviation from Target

The product met its participation and electric and natural gas savings targets for 2015, with support from the third-party implementer, Energy Outreach Colorado (EOC). Electric and natural gas expenditures exceeded the budget due to funding of higher cost measures such as HVAC replacement, roofing, appliances, and boilers in non-profit facilities. EOC partnered with local contractors to retrofit and upgrade equipment and processes for several health facilities and national non-profit organizations with a Colorado presence, contributing to the product's 2015 achievements.

Single-Family Weatherization

The Single-Family Weatherization product offers natural gas and electric efficiency measures to low-income, single-family households in the PSCo service territory. 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.

The product is implemented in partnership with EOC, the Colorado Energy Office ("CEO") and the various weatherization agencies across the state. The program helps to supplement Federal weatherization grants to produce incremental, cost-effective natural gas and electric savings for low-income customers.

Deviation from Target

The product exceeded its natural gas savings target for 2015, due, in large part, to air sealing and insulation measures. The most cost-effective electric measures are building shell measures for electrically-heated homes, but in 2015 there were few opportunities for these upgrades. Lighting measures and refrigerator recycling delivered most of the electric savings

for the product in 2015. Near year-end, EOC implemented some additional refrigerator replacement measures for low-income customers which supported additional electric savings.

60-Day Notice(s)

A 60-Day Notice was posted in September 2015 to add LEDs to the product offering, effective January 1, 2016.

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.[19] 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 five customer-facing products in 2015, including: Business Education, Business Energy Analysis, Consumer Education, Energy Efficiency Financing, and Home Energy Audit. These products did not deliver measured savings in 2015 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, Market Research, Measurement and Verification (M&V), and Product Development. In 2015, the Company operated four DSM pilots:[20] Energy Feedback Pilot – Business, Multifamily buildings Pilot – EE, Smart Thermostat Pilot – EE, and Building Optimization DR Pilot.

Electric

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

[19] In 2015, only the Multifamily Buildings Pilot delivered verified energy savings within the Indirect Program.

[20] Energy Feedback Residential transitioned to a residential product in mid-2015.

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

	Budgets / Targets				Expenditures / Achievements			
Indirect Products & Services - 2015	**Electric Budget**	**Net Gen. kW**	**Net Gen. kWh**	**Electric MTRC Test Ratio**	**Electric Expenditures**	**Net Gen. kW**	**Net Gen. kWh**	**Electric MTRC Test Ratio**
Education/Market Transformation								
Business Education	$152,457				$148,609			
Business Energy Analysis	$986,149				$435,813			
Consumer Education	$1,082,674				$979,982			
Energy Efficiency Financing	$60,000				$64,520			
Home Energy Audit	$580,543				$480,056			
Education/Market Transformation Total	**$2,861,823**				**$2,108,980**			
Planning and Research								
DSM Planning & Administration	$482,174				$493,844			
Program Evaluations	$297,496				$436,747			
Market Research	$328,046				$262,878			
Measurement & Verification	$15,140				$8,159			
Product Development	$1,210,582				$334,127			
Energy Feedback Pilot - Business	$149,163	86	2,586,342	2.12	$146,357	0	0	
Multifamily Buildings Pilot - EE	$146,644	80	480,653	1.72	$77,910	5	53,507	0.56
Smart Thermostat Pilot - EE	$353,363				$222,220	0	0	
Building Optimization DR Pilot	$74,704				$37,101	0	0	
Product Development Total	**$1,934,456**	**165**	**3,066,995**	**0.42**	**$817,715**	**5**	**53,507**	
Planning and Research Total	**$3,057,312**	**165**	**3,066,995**	**0.27**	**$2,019,342**	**5**	**53,507**	
Indirect Products & Services Total	**$5,919,135**	**165**	**3,066,995**	**0.18**	**$4,128,322**	**5**	**53,507**	

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					Expenditures / Achievements				
Indirect Products & Services - 2014	**Gas Budget**	**Net Annual Dth Savings**	**Annual Dth/$M**	**Gas MTRC Test Net Benefits**	**Gas MTRC Test Ratio**	**Gas Expenditures**	**Net Annual Dth Savings**	**Annual Dth/$M**	**Gas MTRC Test Net Benefits**	**Gas MTRC Test Ratio**
Ed./Market Transformation										
Business Education	$43,920	0	0			$40,132			-$40,132	
Business Energy Analysis	$98,563	0	0			$35,230			-$6,503	
Consumer Education	$250,557	0	0			$264,662			-$264,662	
Energy Efficiency Financing	$60,000	0	0			$59,153			-$59,153	
Home Energy Audit	$596,304	0	0			$521,310			-$302,664	
Ed./Market Transformation Total	**$1,049,344**	**0**	**0**			**$920,487**			**-$673,115**	
Planning and Research										
DSM Planning & Admin	$110,037	0	0			$121,486			-$121,486	
Program Evaluations	$11,730	0	0			$6,821			-$6,821	
Market Research	$154,582	0	0			$151,347			-$151,347	
Measurement & Verification	$2,200	0	0			$3,504			-$3,504	
Product Development	$214,640	0	0			$91,255			-$91,255	
Energy Feedback Pilot - Business	$101,337	11,993	118,350	$67,284	1.66	$96,115			-$96,115	
Multifamily Buildings Pilot - EE	$78,384	2,653	33,847	$138,275	2.05	$46,802	183	3,899	-$19,665	0.58
Smart Thermostat Pilot - EE	$117,788	0	0			$102,114			-$63,565	
Product Development Total	**$512,149**	**14,646**	**28,598**	**-83,120**	**0.85**	**$336,286**	**183**		**-270,601**	
Planning and Research Total	**$790,698**	**14,646**	**18,523**	**-361,669**	**0.57**	**$619,445**	**183**		**-553,759**	
Indirect Total	**$1,840,042**	**14,646**	**7,960**	**-1,162,613**	**0.39**	**$1,539,931**	**183**		**-1,226,874**	

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 2015.

Business Education

The Business Education program creates 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 event sponsorships and other onsite outreach, 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 natural gas participation targets for this program while staying on budget. Continued long-term partnerships with community-based organizations contributed to increased participation without additional expenditures. Community partners offered additional outreach opportunities as a result of mutually beneficial, longstanding relationships. The Company's DSM efforts have realized better newsletter readership and positive results from digital tracking and social media reporting, which have supported increased participation.

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 varying levels of detailed information about cost and paybacks, which support the business case for the customer to make energy efficiency upgrades.

Deviation from Target

While the program did not meet its goal of 300 electric participants, the program did identify nearly 11 GWh of energy conservation opportunities (ECOs), an increase from 2014. Marketing efforts included multiple direct mail and e-mail campaigns, as well as a promotional onsite energy audit price of only $100 throughout the year. Electric expenditures were in line with product participation, and, therefore, less than the filed budget. Gas expenditures were less than the filed budget.

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, follow-up emails, digital kiosks, 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 natural 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 expenditure included: 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 deliver better newsletter readership and social media reporting, which have also resulted in increased DSM participation.

Changes in 2015

The product continues to expand efforts through digital channels to communicate with customers in new ways, and to encourage an increased participation in DSM programs.

Energy Efficiency Financing

Energy Efficiency Financing is an indirect impact product, connecting residential and business customers with third-party lending institutions to encourage the 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

The target of 25 business loans and 275 residential loans was not reached, with only 81 residential participants in 2015; but the Company did identify gaps in commercial offerings to customers and established new lending Allies. The Company will continue to strategically promote the program through trade partner network and trainings, business and residential marketing communications, sponsorships, and events. The Company continues work to establish an unsecured loan offering available to all PSCo residential customers in the future.

Home Energy Audit

The Home Energy Audit service 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 can earn the customer a rebate: (1) standard audit; (2) standard audit with blower door test; or (3) infrared audit which includes the standard audit 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 service.

Deviation from Target

The Company exceeded its natural gas participation target for audits while remaining under budget; but did not achieve its electric participation target. Electric expenditures were proportional to participation.

Changes in 2015

The Energy Advising service, newly implemented in 2015, achieved a consistent 50% conversion rate in helping homeowners make upgrades, and homeowners rated the service very highly in surveys completed by the third-party implementer. The service will continue in 2016.

Planning & Research Products

The following provides a brief summary of the performance of each planning and research product in 2015.

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 2015, the Company's expenditures were largely on budget in terms of electric and natural gas expenditures.

DSM Market Research

The Company conducts surveys and studies throughout the year to gauge energy awareness and customer 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 2015, the Company conducted the following general research and analytical services:

- Home Energy Audit Tracking
- Home Performance with ENERGY STAR Tracking
- Review of NTG Survey Data for Prescriptive Products
- Residential and Business Advertising Tracking
- Contracting support for Portfolio-Wide Technical Assumptions Review
- Residential Attitude, Awareness and Usage (AAU) Study
- Dun & Bradstreet Business list refresh for Salesforce market segmentation
- E Source Consultative Services
- CEE Consultative Services
- Home Use Study

Additionally, the Company supported third-party completion of a special market analysis: *Colorado Lighting Market 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

In 2015, the Market Research expenditures were on budget for both electric and gas expenditures.

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 2015, two evaluations were conducted, for Home Lighting and Recycling and Lighting Efficiency.

Both evaluations were process and impact. High-level outcomes from these evaluations include:

- *Home Lighting and Recycling (Residential):* The evaluator identified many program successes and achievements—including the balanced mix of bulb offerings, including specialty bulbs, strong promotional activities, etc. The few opportunities noted for improvement were related to store signage promoting Xcel Energy as a sponsor, incorporating store managers into in-store trainings, reviewing the retailer RFP process, and increasing the number of field staff. Key technical assumption updates resulting from the evaluation were updates to the hours of use (HOU) assumption and the net-to-gross (NTG).
- *Lighting Efficiency (Business):* The evaluator recognized that the product is a well-coordinated offering that is achieving its annual targets. Suggestions for improving the product included improving customers' understanding of eligible equipment, simplifying eligibility criteria, and providing more training to keep trade allies informed of the latest program developments. The product will also consider recommendations to incorporate a simple payback calculator into the application process, develop an online application, and establish a preapproval process for prescriptive applications. The only technical assumption change recommended was to an update the NTG.

Evaluation reports can be found on the Company's website, here: http://www.xcelenergy.com/Company/Rates_&_Regulations/Filings/Colorado_Demand-Side_Management

Deviation from Target

Program Evaluations ended the year slightly under budget when electric and natural gas expenditures are considered as a whole; there was a slight imbalance in electric vs. gas costs due to focus on electric product evaluations in 2015.

Measurement and Verification

Measurement and Verification (M&V) activities ensure that all direct electric and natural gas DSM savings are properly calculated in the system of record (Salesforce) and accurately reported for compliance purposes, on a quarterly and annual basis. This M&V ensures that technical assumptions, net-to-gross (NTG) ratios, and realization rates used in energy savings calculations are as accurate as possible.[21] The expenditures associated with M&V, as reported in the Executive Summary of this report, include only the internal labor to manage the overall M&V process. M&V expenses from third-party verification contractors are charged directly to individual products supported.

[21] In the 2015 calendar year, technical assumptions are applied to energy savings based on which Plan-year they were achieved in. The 2014 DSM Plan remained in effect from January 1, 2015 through July 31, 2015. The 2015 DSM Plan took effect on August 1, 2015.

The intensity of third-party M&V methods 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 analyses are reported in the section of this Report labeled "Evaluation, Measurement, and Verification Results."

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, delivery mechanisms, and other opportunities for its customers.

In 2015, the Company developed 6 new DSM products or measures that were introduced via 60-Day Notices. 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 2015 follows:

Full Product Development Process

1. ENERGY STAR Retail Products Platform (ESRPP) Pilot
2. Upstream High Efficiency Power Supplies for Servers (Computer Efficiency)

PD Express (PDx) Process

1. Bay Lighting (Lighting Efficiency)
2. LED Linear Tubes (Lighting Efficiency)
3. LED bulb technical assumptions for Low-Income products (Energy Savings Kit and Single-Family Weatherization)
4. "Close the Case" measure (Commercial Refrigeration)

Deviation from Target

DSM Product Development expenditures were under budget in 2015 due to lower than anticipated costs for research, consulting services, and association dues.

Energy Feedback Pilot – Business

The Energy Feedback Pilot – Business delivered Business Energy Reports to approximately 10,000 small business customers in Xcel Energy's Colorado service territory in 2015. The pilot is measuring the effectiveness of various feedback methods on small business (up to 250 kW of demand) customers' energy usage. 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 increased, or earlier, adoption of energy-efficient technologies and energy-efficient practices.

Six sets of Business Energy Reports were delivered to customers in 2015.

Deviation from Target

The pilot did not measure any statistically significant energy savings during 2015; this finding was verified by both the third-party administrator and the third-party evaluator.

60-Day Notice(s)

A 60-Day Notice was posted in the fourth quarter of 2015 to continue the pilot in 2016 rather than transitioning it to a product, due to the inconsistency in energy savings observed during the initial 17 months of the pilot.

Multifamily Buildings Pilot

The Multifamily Building Pilot was designed to introduce multifamily building equipment owners to Xcel Energy's DSM products and to deploy DSM measures that will lower customers' energy consumption.

The pilot engaged customers in a three-stage process for multifamily buildings:

Stage 1. Energy assessment
Stage 2. Direct installation of in-unit energy saving measures
Stage 3. Larger capital energy efficiency improvements (comprehensive building upgrades, custom/prescriptive projects, etc.)

Deviation from Target

Due to unforeseen contracting delays, the pilot did not launch to customers until September 2015, and, therefore, targeted energy savings achievements for 2015 were not met.

60-Day Notice(s)

A 60-Day Notice was posted in the fourth quarter of 2015 to update the technical assumptions for the pilot. This included (1) revising the CFL lamp size and LED wattage assumptions to reflect the bulbs being installed; (2) updating incremental costs and rebates to align with pricing under the selected vendor; (3) the addition of new direct install measures (low-flow showerheads for handheld systems and CFL globe fixtures); (4) revising the technical assumptions for water heater blankets; and (5) correcting Deemed Savings references.

Demand Response Program

Demand Response (DR) provides utilities with a valuable tool for managing peak demand on the electric system. The Company offered three types of DR products in 2015: (1) Direct Load Control, (2) Interruptible DR, and (3) Non-Dispatchable DR.[22] The Company's DR Program includes participation opportunities for business and residential customers on a Public Service firm demand rate for electric service.

While customers interest in newly launched DR initiatives increased in 2015, the DR Program faced challenges in delivering additional load. DR results for 2015 are shown in Table 17 below.

Table 17: 2015 DR Results (MW)

	Goal[23]	**Actual**
Demand Response (DR)	528	499
Demand Reduction from Energy Efficiency (EE-DR)	65	72
Total	**593**	**571**

Ordering Paragraph 6 of Recommended Decision No. R15-0496 authorized the Company to "use its best efforts to obtain a controllable load of 503 MW in 2015 and 516 MW in 2016 from its Demand Response Program, and strive to meet total demand reduction goals of 593 MW in 2015 and 602 MW in 2016 from the combination of demand response and energy efficiency programs."[24]

External DSM stakeholders were aware of the challenge presented by this goal at the outset and the Company agreed to hold two meetings with Settling Parties[25] during 2015 to maintain communication on DR issues. The first meeting was held June 23, 2015; at that time the Company was projecting a 6 MW deficit to the goal. The second meeting was held November 18, 2015; and at that time the Company was projecting no variance based largely on expectations that EE-DR would deliver 87 MW by year-end.

When the 2015/16 DSM Plan was filed in Proceeding No. 14A-1057EG, the Company had forecasted a 10 MW gap in DR.[26] While the EE-DR annual goal of 65 MW was achieved, the performance was 7 MW below the Plan forecast. Saver's Switch ended the year at a 3 MW gap below the Plan forecast. Also, DR pilots did not deliver the 2 MW that had been forecasted. Combined, these factors left an overall DR deficit of 22 MW at year-end.

[22] See page 312 of the 2015/16 DSM Plan (Proceeding No. 14A-1057EG).
[23] Decision No. C14-0731, Proceeding No. 13A-0686EG, Paragraph 60, page 22.
[24] Decision No. R15-0496, Proceeding No. 14A-1057EG, Ordering Paragraph 6, page 57.
[25] Parties to the 2015/16 DSM Plan Settlement Agreement, Proceeding No. 14A-1057EG.
[26] Supplemental Direct Testimony of Peter J. Narog, Rev 1, Proceeding 14A-1057EG, page 6.

Table 18: Demand Response Program – Electric DSM products (Budget to Actual)

	Budgets / Targets				Expenditures / Achievements			
Demand Response Program - 2015	Electric Budget	Net Gen. kW	Net Gen. kWh	Electric MTRC Test Ratio	Electric Expenditures	Net Gen. kW	Net Gen. kWh	Electric MTRC Test Ratio
Saver's Switch	$12,801,015	13,390	174,412	1.92	$12,308,484	10,536	145,366	1.61
Smart Thermostat Pilot - DR	$373,850	638	8,310	0.35	$17,097	0	0	
Small Business Smart Thermostat Pilot	$374,226	624	17,726	2.12	$5,013	0	0	
Building Optimization DR Pilot	$182,894	834	26,698	0.53	$89,639	0	0	
Demand Response Program Total	**$13,731,985**	**15,486**	**227,146**	**1.80**	**$12,420,232**	**10,536**	**145,366**	**1.60**

Demand Response Products

The following provides a brief summary of the performance of each demand response product in 2015.

Building Optimization DR Pilot

The Building Optimization Demand Response (DR) Pilot is designed to evaluate the use of building optimization software to obtain reliable DR load relief from commercial business customers. A growing trend in managing energy use in buildings is to utilize building energy management systems with "optimization" software to better manage building's heating, ventilation, and air-conditioning (HVAC) systems. Through the use of cloud-based data collection and energy modeling, a building's control system can be continuously adjusted to optimize performance. Of key interest for the pilot is these systems' promised ability to reduce building loads in response to utility-initiated DR control events.

The objectives of the pilot are to: (1) evaluate how effective optimization software is in delivering promised demand reduction, and (2) confirm that these changes are unobtrusive to the building operators.

Deviation from Target

This pilot was launched with approval of the 2015/16 DSM Plan in mid-2015. No customers had the software installed and in optimization mode in 2015, therefore, their buildings were not ready for demand response events. The pilot will continue in 2016, and potentially be extended through 2017 in order to gather data during a second control season.

Interruptible Service Option Credit (ISOC)

The Interruptible Service Option Credit (ISOC) program offers savings opportunities for business customers on the ISOC Tariff[27] 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. Participating customers must have a Contract Interruptible Load (CIL) of 300 kW or more.

[27] Advice Letter No. 1524 (Second Amended); Electric Tariff Sheet No. 90.

Deviation from Target

Customer credits paid totaled $28,246,625.61 in 2015, which was below the $32.7 million forecasted budget. The budget for program administration was $520,592, and the actual administration expenditures totaled $521,322.77. The program added eight new participants in 2015, totaling 9.1 Gen MW of new CIL.

Third-Party Demand Response

The Third-Party Demand Response (Peak Savings Program), managed by EnerNOC, was designed to provide 40 MW of demand reduction annually and up to 44 MW at a "full participation" maximum (customer kW) for the DSM portfolio. Program participants range in size from 50 kW to 1 MW. The interruptible load available through the program appears as one large resource to Public Service's System Operators. Public Service can choose to interrupt the load 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 the minimum 40 MW (customer kW) of interruptible load each month. EnerNOC did not maintain the minimum contractual load for 2015, nominating an average of 36 MW (customer kW), or 39 MW (generator kW), of interruptible load. This was largely due to the loss of customers who were influenced by the new EPA back-up generator emission rules[28] including for permitting, record keeping requirements, and limitations on annual hours of operations for demand response.

The program forecasted expenditures in 2015 at $2,292,752, but due to the reduced nominated interruptible load as mentioned above, the actual expenditures totaled $1,878,952 in 2015.

Saver's Switch

Saver's Switch is a demand response product that offers residential customers with central air conditioning (A/C) an annual rebate on their bill in exchange for allowing the Company to control their A/C during times of peak demand. The product has been in existence since 2000 and has approximately 185,000 active participants. The product had two control events in 2015.

Deviation from Target

The Saver's Switch product has been intensely promoted for a number of years, and 2015 was no exception. Despite receiving approximately 20,000 customer sign-ups, the product

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

fell short of its installation target of 12,000 new switches. In all, approximately 9,200 new switches were deployed during the year. The Company projects that more than half of eligible customers in Colorado are already enrolled in Saver's Switch.

Changes in 2015

Assumptions for energy savings and demand reduction per switch were lower in the 2015/2016 DSM Plan than in the 2014 DSM Plan; the assumption was updated based on field research prior to the Plan filing.

Evaluation, Measurement, and Verification: 2015 Results

Background

An Evaluation, Measurement, and Verification (EM&V) Plan is necessary to help ensure that Public Service's DSM programs are delivering reliable energy and demand savings and to improve overall program design and operation. Public Service developed its EM&V Plan to evaluate, measure, and verify savings for gas and electric DSM products during and after each performance year, in order to confirm that savings and technical assumptions are accurate. The robustness of any EM&V Plan 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 measurement and verification activities. In 2015, 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 and 2015/16 DSM Plans). The first step entails validating every application for accuracy and completeness as it is received prior to processing. In the second step, all rebates that have been entered into a tracking system are audited each day prior to issuing a rebate. The objective of this validation is to ensure that the rebate forms and the reported gross savings that are entered into the Company's databases are as accurate as possible and that customers are receiving the correct rebates.
- **Ongoing Measurement and Verification** 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 measurement and verification 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 sections describe the general M&V methods that have been used for prescriptive, custom, load management, and pilot products.

- 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.
- 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 and a net-to-gross of 87% is used.
- 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.
- 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; and determining attribution factors, such as free-ridership and spillover. The objectives of the impact evaluation include estimating net product impacts. These evaluations do not verify the savings of a specific performance year and are not applied retrospectively 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.

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 in Gas Rule (4 Code of Colorado Regulations (C.C.R.) 723-4-4755) and within the approved Settlement Agreement for the Company's 2012/13 DSM Plan (Proceeding No. 11A-631EG) and the approved Settlement Agreement for the Company's 2015/16 DSM Plan (Proceeding No. 14A-1057EG).

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 Plan:

- The ongoing M&V Plan will be conducted annually for all products. Comprehensive evaluations will be conducted on a staggered schedule over several years.
- The ongoing M&V Plan results will be reported with each annual DSM Status Report.
- For products that use a sampling methodology for M&V, the Plan will address sampling bias and all samples will be designed to yield statistically significant results.
- For products that are selected for a comprehensive evaluation, an evaluation of free ridership, spillover, and the net-to-gross ratio 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 2015

For 2015, 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 July 31, 2015, the 2014 DSM Plan technical assumptions are used to calculate net savings. For the achievements realized between August 1 and December 31, 2015, the 2015 DSM Plan technical assumptions are used to calculate net savings. All savings achieved in 2015 have the same realization and installation rates applied to them, resulting from M&V conducted in 2015.

As discussed and approved as part of the 2015/16 DSM Plan, the Company has transitioned 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. For 2015, the Company used the November 1, 2014 – October 31, 2015 time period to collect the M&V data utilized in the 2015 DSM Annual Status Report; and the November through October M&V period will continue into the future.

2015 M&V Results

The following paragraphs provide the M&V activities and results for each of the DSM products offered by the Company in 2015. All M&V activities followed the processes described above and outlined in the M&V Plan filed with the 2014 and 2015/16 DSM Plans, unless noted below. 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 99.1% for electric demand, 99.2% for electric energy, and 100.1% for natural gas energy in 2015. Applying the results to the portfolio's gross savings, the Company achieved 82,916 net generator kW, 406,546,135 net generator kWh, and 598,015 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 rebated 4,665 prescriptive Commercial Refrigeration Efficiency measures. For these measures, Nexant performed 36 field inspections of installed energy efficient equipment at randomly-selected participant locations to verify key savings factors. The final electric demand and energy realization rates, as well as the gas realization rate for the 2015 Commercial Refrigeration Efficiency prescriptive measures were 99.9% ± 0.2%, 99.9% ± 0.2%, and 100.0% ± 0.0%, respectively, around the targeted 90% confidence level.

The Company rebated 17 custom direct installation Commercial Refrigeration Efficiency measures in 2015. 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. In 2015, Public Service rebated 122 prescriptive Compressed Air Efficiency measures. Of these projects, Nexant performed 21 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 2015 Compressed Air Efficiency prescriptive measures were 100.0% ± 0.0% and 100.0% ± 0.0%,

respectively, around the targeted 90% confidence level. The Company completed 23 studies and 12 custom Compressed Air Efficiency projects in 2015. 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 2015, the Computer Efficiency product provided 25,556 upstream manufacturer incentives with a final installation rate of 100%. In addition, Public Service rebated a total of 652 virtual desktop infrastructure installations. 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 2015 Computer Efficiency prescriptive measures were 100.0% ± 0.0% and 100.0% ± 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 rebated 1,094 prescriptive Cooling Efficiency measures. For these measures, Nexant performed 37 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 2015 Cooling Efficiency prescriptive measures were 99.4% ± 1.0% and 99.7% ± 0.5%, respectively, around the targeted 90% confidence level. The Company completed two custom Cooling Efficiency projects in 2015. 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 rebated 16 electric and 6 gas Custom Efficiency projects in 2015. 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 rebated 71 prescriptive measures and 10 custom measures in 2015. The final aggregated demand and energy realization rates for the 2015 Data Center Efficiency prescriptive measures were 99.9% and 99.8%, respectively

Energy Management Systems

The Energy Management Systems product provides custom rebates. Measurement and verification of this product follows the custom protocols described above. In 2015, the EMS product completed 41 electric and 20 gas projects.

Heating Efficiency

The Heating Efficiency product provides prescriptive and custom rebates for efficient heating equipment. In 2015, M&V of the prescriptive component of the product was performed by Nexant, following the prescriptive protocols described above. Public Service rebated 215 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 realization rate for the 2015 Heating Efficiency prescriptive measures was 100.0% ± 0.0%, around the targeted 90% confidence level. The Company completed no custom Heating Efficiency projects in 2015. The custom component would have been reviewed by internal engineers following the custom protocols described above. ‘

Lighting Efficiency

The Lighting Efficiency product offers prescriptive, midstream, custom, and study rebates. In 2015, M&V of the prescriptive and midstream components of the product were performed by Nexant, following the prescriptive protocols described above. Public Service rebated 225,832 prescriptive Lighting Efficiency measures and 93,699 midstream Lighting Efficiency measures. Of these projects, Nexant performed 44 prescriptive and 40 midstream 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 2015 Lighting Efficiency prescriptive measures were 99.9% ± 0.2% and 99.5% ± 0.7%, respectively, around the targeted 90% confidence level. The final demand and energy realization rates for the 2015 Lighting Efficiency midstream measures were 83.0% ± 13.4% and 83.0% ± 13.4%, respectively, around the targeted 90% confidence level. The Company rebated 642 custom Lighting Efficiency measures in 2015. The custom component was reviewed by internal engineers following the custom protocols described above.

Lighting - Small Business

The Lighting - Small Business product offers prescriptive, midstream, direct install, and custom rebates. In 2015, M&V of the prescriptive and midstream components of the product was performed by Nexant, following the prescriptive protocols described above. Public Service rebated 34,791 prescriptive Lighting - Small Business measures and 35,934 midstream measures. Of these projects, Nexant performed 41 prescriptive and 40 midstream 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 2015 Small Business Lighting prescriptive measures were 99.5% ± 0.7% and 99.7% ± 0.5%, respectively, around the targeted 90% confidence level. The final demand and energy realization rates for the 2015 Lighting – Small Business midstream measures were 83.0% ± 13.4% and 83.0% ± 13.4%, respectively, around the targeted 90% confidence level. The product resulted in the direct installation of 39 electric and 81 gas measures. The Company completed 355 custom Lighting - Small Business projects in 2015. The custom

component was reviewed by internal engineers following the custom protocols described above.

Motor & Drive Efficiency

The Motor & Drive Efficiency product offers prescriptive and custom rebates. In 2015, M&V of the prescriptive component of the product was performed by Nexant, following the prescriptive protocols described above. Public Service rebated 1,233 prescriptive Motor & Drive Efficiency measures. Of these measures, 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 2015 Motor & Drive Efficiency prescriptive measures were 100.0% ± 0.0% and 100.0% ± 0.0%, respectively, around the targeted 90% confidence level. The Company completed 7 custom Motor & Drive Efficiency projects in 2015. 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 rebated 1,153 electric projects and 784 gas projects under the Energy Efficient Buildings component in 2015. M&V for these projects was performed by Nexant. Public Service completed 127 electric projects and 92 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 2015, M&V of the prescriptive component of the product was performed by Nexant, following the prescriptive protocols described above. In 2015, Public Service rebated 3,268 prescriptive Process Efficiency measures. These projects were included in the pool of prescriptive projects on which Nexant performed field inspections.

Recommissioning

The Recommissioning product offers study and custom rebates. Public Service completed 17 electric and 9 natural gas Recommissioning projects in 2015. 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.

Self-Direct

The Self-Direct product offers custom rebates. Customers completed two Self-Direct projects in 2015. 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.

Residential Products

Energy Efficient Showerheads

The Energy Efficient Showerheads product provides customers with up to two free 1.5 gpm showerheads, a 1.5gpm kitchen faucet aerator, and up to two 1.0 gpm bathroom faucet aerators. In 2015, Public Service provided 11,708 measures to electric customers and 150,595 measures 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 64.6% for showerheads, 36.6% for kitchen aerators, and 37.0% for bathroom aerators.

Energy Feedback Residential

The Energy Feedback Residential product 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. By the end of 2015, the Energy Feedback Pilot included approximately 400,000 customers. This program was implemented and analyzed by a third-party provider, OPower, and M&V was performed by Cadmus. In 2015, the realization rate for the Energy Feedback Pilot was 100.0%.

ENERGY STAR New Homes

Public Service's ENERGY STAR New Homes product offers prescriptive rebates. In 2015, 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 2015, 4,597 electric and 4,923 gas homes successfully completed the program requirements.

Evaporative Cooling

The Evaporative Cooling Rebate product provides prescriptive rebates to customers who purchase efficient evaporative cooling units. In 2015, M&V of this product was performed

by Nexant, following the prescriptive protocols described above. Public Service rebated 2,732 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 2015 Evaporative Cooling product were 100.0% ± 0.0% and 100.0% ± 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 3,681 Quality Installations in 2015, 880 of which were for New Equipment, and 2,801 of were for trade-ins. The final demand and energy savings realization rates for the New Equipment component of the product in 2015 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 2015 were 90.1% and 90.2%, 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 2,801 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 2015 were 100.0% ± 0.0% and 100.0% ± 0.0%, respectively, around the targeted confidence level of 90%.

Home Energy Squad

The Home Energy Squad product offers installation services and discounted equipment to residential customers. The third-party implementer verifies and reports implemented

measures to the Company. The final demand and energy realization rates for the 2015 Home Energy Squad product were 100.0% ± 0.0% and 100.0% ± 0.0%, respectively, around the targeted 90% confidence level.

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 2015, 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 4,246,274 CFLs and 1,409,475 LEDs sold in 2015. Nexant examined and verified 44 invoice line detail items out of the total 86,215 residential records contained within the Company's program tracking database. The 44 line items were taken from a sample of 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 2015, 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 388 electric and 675 gas measures rebated in 2015. Due to the extensive testing performed on each home, this product is assumed to have a realization rate of 100%.

Insulation & Air Sealing

The Insulation & Air Sealing product provides prescriptive rebates to customers who add insulation to their homes. In 2015, M&V of this product was performed by Nexant, following the prescriptive protocols described above. Public Service rebated 484 electric and 1,654 gas measures. 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 2015 Insulation & Air Sealing product were 100.9% ± 2.4%, 100.9% ± 2.3%, and 102.3% ± 2.4%, respectively, around the targeted 90% confidence level.

Refrigerator & Freezer Recycling

The Refrigerator & Freezer Recycling product provides a rebate to customers who retire their old, inefficient, but operational refrigerators and freezers. In 2015, M&V of this product was performed by Nexant, following the prescriptive protocols described above. The Company recycled 6,167 refrigerators and 1,284 freezers. 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 2015 Refrigerator & Freezer Recycling product were 100.0% ± 0.0% for both demand and energy savings.

Residential Heating

The Residential Heating product provides prescriptive rebates to customers who install efficient furnaces, boilers, and EC motor furnace fans. In 2015, M&V of this product was performed by Nexant, following the prescriptive protocols described above. Public Service rebated 4,570 electric and 3,196 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 2015 Residential Heating product were 100.0% ± 0.0%, 100.7% ± 1.2%, and 100.0% ± 0.0%, respectively, around the targeted 90% confidence level.

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 2015, the Product included 39,133 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 2015 year-end savings for the program were determined using the installation rates by measure determined by AM Conservation.

Water Heating

The Water Heating product provides prescriptive rebates to customers who purchase new, energy efficient water heaters. In 2015, M&V of this product was performed by Nexant, following the prescriptive protocols described above. Public Service provided 29 electric and 896 gas rebates in 2015. 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 2015 Water Heating product were 100.0% ± 0.0%, 100.0% ± 0.0%, and 100.0% ± 0.0%, respectively, around the targeted 90% confidence level.

Saver's Switch

Public Service's load management group selected 200 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). Based on the results of the smart switches, DNV GL established a stable forecast estimate of 1.10 generator kW per smart switch of available load relief. This resulted in a realization rate of 99.5%, when compared to the savings of 1.105 gen kW per switch anticipated in the 2014 DSM Plan, and 98.5% when compared to the savings of 1.116 gen kW per switch originally anticipated in the 2015/16 DSM Plan. Note that the measurement and verification performed on Saver's Switch does not include switches deployed in 2015. The sampling is conducted in the spring before any switches are installed and the sample premises are monitored throughout the cooling season. As such, the realization rates determined by this process will be applied prospectively in the next (2017/18) DSM Plan.

Low-Income Products

Energy Savings Kit

The Energy Savings Kits product provides energy efficiency kits to low-income customers. In 2015, the product delivered 963 electric kits and 7,641 gas kits. This product was implemented by a third-party provider, Energy Federation Inc., who identified income-qualified customers to receive kits. CustomerLink performed a phone survey to those customers who received a kit. Installation rates were found to be 60.9% for CFLs, 58.9% for showerheads, and 49.4% for aerators.

Multifamily Weatherization

The Multifamily Weatherization product offers weatherization measures to qualifying low-income multi-family buildings. In 2015, Public Service completed 40 electric and 18 gas Multifamily 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

The Non-Profit product offers weatherization services to non-profit organizations. In 2015, the product completed 34 electric and 25 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 2015, 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 2015 direct impact pilot products included:

- Energy Feedback Pilot - Business,
- Multifamily Building Pilot,
- Smart Thermostat Pilot, and
- Building Optimization DR Pilot.

Energy Feedback Pilot - Business
The Energy Feedback Pilot offers customers a variety of methods to receive feedback on their energy consumption in order to quantify how these different forms of feedback impact customers' energy use. This pilot did not have any savings in 2015.

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. The third-party implementer is responsible for the measurement and verification of the pilot. In 2015, the third-party implementer used the deemed savings of the direct installation measures to calculate savings and reported those savings to the Company on a quarterly basis.

This product follows the Company's standard prescriptive product measurement and verification process.

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 did not have any savings reported in 2015.

Building Optimization DR Pilot
This pilot will determine whether software tools designed for "Predictive Energy Optimization" of commercial building control systems can be leveraged to provide Demand Response resources. This pilot did not have any savings in 2015.

Post-Program Year Activities

All measurement and verification activities for the 2015 performance year were completed in 2015 or early in 2015 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.

Product Process and Impact Evaluations Performed in 2015

Public Service contracted for evaluators to perform process and impact evaluations on two direct impact products in 2015: Lighting Efficiency and Home Lighting & Recycling. 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.

Lighting Efficiency
The Cadmus Group Inc. conducted a comprehensive process evaluation of the Lighting Efficiency product, which included stakeholder interviews, participating and nonparticipating customer site visits, participating and nonparticipating trade partner surveys, benchmarking against other utilities' business lighting programs, and calculation of an updated net-to-gross

value, which included free-ridership, spillover, and market effects. While recognizing that the overall Lighting Efficiency product is well-coordinated and on target with its achievements, the Cadmus 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:

Training & Marketing

- Improve customers' understanding of eligible equipment by simplifying equipment eligibility criteria or by providing more training material to help participants easily navigate the eligibility requirements;
- Consider promotions to raise awareness for short webinar trainings to keep trade allies informed of the latest program developments;
- For the program's future success, Xcel Energy may establish an online calculator for estimating savings to enable trade partners and customers to more accurately estimate energy savings and custom rebate amounts in real time prior to submitting their application;
- Focus development and distribution of training materials to end-use customers' facility management staff (rather than accounting staff);
- Consider conducting trainings in various locations within Xcel Energy's service location and promote online webinars to increase awareness of existing training opportunities. Trainings may also help to set expectations for application processing time, particularly in regions where trade partners may have different expectations based on proximity to other utility service areas;
- Continue to develop and distribute case studies presenting simple paybacks on LED technology investments;
- Incorporate a simple payback calculator in the application process that trade partners can use for marketing the program;
- Consider simplifying prescriptive rebate application requirements to reduce the volume of applications carried over to the custom application option;
- Continue investing in trade partner outreach and training to enable them to accurately assess equipment eligibility in order to qualify more projects under prescriptive rebate application.

Application Process

- Consider adopting an online application process that allows real-time tracking of an application's status, along with other useful resources and calculators. Trade partners suggested that they prefer the online rebate application form to be in an Excel spreadsheet format;
- Consider establishing the preapproval process to review prescriptive applications for completeness of application and confirming equipment eligibility. Consider establishing a preapproval process for prescriptive applications;
- Ensure Xcel Energy account managers consistently communicate the program by training them and ensuring they are aware of eligibility updates and changes;
- Consider relaxing the eligibility criteria for LED fixtures;
- Consider developing an online tool that helps customers and vendors understand eligibility criteria based on existing fixtures needing replacement/retrofit;

- Consider ways to reduce application processing times.

Trade Allies

- Consider updating the trade partner list with updated contact names and details to ensure easy access to the trade partner organization and the ability to identify prospective partners not currently participating;
- Trade partners also suggested that Xcel Energy maintains an updated list of participating trade partners by region on its website so that retail and end-use customers can readily identify trade partners in their vicinity to partner with.

Net-to-Gross

- Cadmus recommends that Xcel Energy consider using the calculated NTG of 99% for this program going forward. The low calculated freeridership, coupled with high trade partner engagement and low market effects supports a high NTG for the program.

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.

Home Lighting & Recycling

The Cadmus Group Inc. conducted a process evaluation of the Home Lighting & Recycling product in 2015, which included interviews with internal staff, third-party implementation staff, and participating retailers and manufacturers; surveys with participating customers; lighting inventories at homes and with on-line retailers; and benchmarking other utilities' home lighting programs. The results of this evaluation revealed product success in many areas, including good product flexibility to adapt to a changing lighting market. The team's recommendations are to:

Retailer Engagement

- In addition to store signage promoting Xcel Energy as a sponsor for markdowns to customers, consider opportunities to gain visibility with store staff beyond the lighting department manager. Where not currently the practice, field representatives could incorporate staff such as store managers into in-store trainings to further engage them with the program and confirm they recognize when field staff have visited.
- Review the RFP process to determine if any tools or process changes can support or simplify the application process, making it easier for manufacturers to respond.
- Consider increasing the number of field staff to increase ability to perform regular site visits, conduct promotional events, and provide resources for retailers.
- Ensure retail locations have sufficient signage and education materials—to the extent allowed by the retailer; it may also be beneficial to discuss additional resources a store location would like to be provided while on site, to ensure materials fit within store guidelines.

Program Offerings

- Continue balancing the mix of LEDs and CFLs offered to optimize the program mix. Clearly, more LEDs would sell with more incentives; however this must be balanced with lower cost measures for cost-effectiveness considerations. One additional measure to consider is "value" (lower cost) LEDs, which would help move the measure mix towards LEDs while helping to manage the cost effectiveness of the program.
- Continue to promote unique features of specialty CFLs, such as dimming and outdoor applications.
- Continue to monitor the market to identify other emerging technologies (e.g., bulbs connecting to home automation or specialty energy-efficient bulbs) which prove popular and could be considered for inclusion in the program.

Customer Awareness

- Continue to offer promotional activities beyond stores (e.g., radio plugs, bill inserts).
- Consider working with trade allies to expand program awareness materials in areas beyond lighting aisles (e.g., check-out lines, store windows).
- Consider expanding the amount and type of POP materials where possible. Work with retailers to determine if additional or different types of signage can be displayed.

Technical Assumptions

- Review the HOU used in the technical assumptions to determine if the assumed HOU needs to be updated.
- Cadmus recommends using the calculated NTG of 79% for CFLs and 91% for LEDs for future program planning.

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.

M&V Results

The following pages provide Tables 19a-19f, which describe the installation rates and realization rates used to calculate net, verified savings by program component. The column headings of Tables 19a-19f are defined in the following table:

Column Heading	Definition
2015 Product	The DSM product offered by Public Service in 2015.
End-Use Measure Type	Whether the product was prescriptive or custom, or the product 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) Realization Rate	The ratio of gross electric demand savings measured in the M&V process to the electric demand savings claimed in the rebate application, expressed as a percentage.
Energy (kWh) Realization Rate	The ratio of gross electric energy savings measured in the M&V process to the electric energy savings claimed in the rebate application, expressed as a percentage.
Energy (Dth) Realization Rate	The ratio of gross natural gas energy savings measured in the M&V process to the gas energy savings claimed in the rebate application, expressed as a percentage.
Verified Gross Gen kW	The gross demand savings at the generator after the installation and demand realization rates have been applied.
Verified Gross Gen kWh	The gross energy savings at the generator after the installation and energy realization rates have been applied.
Verified Gross Dth	The gross savings after the installation and gas realization rates have been applied.
Electric Demand NTG	The net-to-gross ratio (percentage) applied to the Verified Gross Gen kW 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 kWh	The final energy savings at the generator achieved once the installation rate, 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 19a: 2015 (Pre-8.1.2015) Business Segment Installation Rates, Realization Rates, and Final Net, Verified Savings by Program Component

2015 Products January 1 - July 31, 2015	End-Use/Measure Type	Gross Peak Gen kW	Gross Gen kWh	Gross Dth	Install Rate	Demand (kW) RR	Energy (kWh) RR	Energy (Dth) RR	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 Program																	
Commercial Refrigeration	Prescriptive and Custom	259	2,514,893	195	100.0%	99.9%	99.9%	100.0%	258.8	2,511,989	195	96.8%	98.4%	100.0 %	250.470	2,471,289	195
Compressed Air Efficiency	Prescriptive	123	603,508	N/A	100.0%	100.0%	100.0%	N/A	123	603,508	N/A	87.0%	87.0%	N/A	107	525,052	N/A
	Studies & Custom	276	2,034,673	N/A	100.0%	100.0%	100.0%	N/A	276	2,034,673	N/A	87.0%	87.0%	N/A	240	1,770,165	N/A
Computer Efficiency	Prescriptive	465	3,461,212	N/A	100.0%	100.0%	100.0%	N/A	465	3,461,212	N/A	69.0%	69.0%	N/A	321	2,389,610	N/A
Cooling	Prescriptive	1,256	5,610,407	N/A	100.0%	99.4%	99.7%	N/A	1,249	5,593,576	N/A	80.0%	80.0%	N/A	999	4,474,861	N/A
	Custom	0	46,094	N/A	100.0%	100.0%	100.0%	N/A	0	46,094	N/A	87.0%	87.0%	N/A	0	40,102	N/A
Custom Efficiency	Custom	787	7,878,309	817	100.0%	100.0%	100.0%	100.0%	787	7,878,309	817	87.0%	87.0%	93.0%	685	6,854,129	760
Data Center Efficiency	Prescriptive and Custom	591	7,631,427	N/A	100.0%	100.0%	99.9%	N/A	591	7,620,743	N/A	95.3%	97.0%	N/A	560	7,389,511	N/A
Energy Management Systems	Custom	18	3,117,019	8,344	100.0%	100.0%	100.0%	100.0%	18	3,117,019	8,344	87.0%	87.0%	90.0%	16	2,711,807	7,510
Heating Efficiency	Prescriptive	N/A	N/A	8,171	100.0%	N/A	N/A	100.0%	N/A	N/A	8,171	N/A	N/A	86.0%	N/A	N/A	7,027
Lighting Efficiency	Prescriptive	2,085	12,974,374	N/A	100.0%	99.9%	99.5%	N/A	2,083	12,909,889	N/A	84.0%	84.0%	N/A	1,750	10,844,307	N/A
	Mid-Market	416	1,871,226	N/A	100.0%	83.0%	83.0%	N/A	345	1,553,117	N/A	84.0%	84.0%	N/A	290	1,304,619	N/A
	Custom	2,560	14,509,695	N/A	100.0%	100.0%	100.0%	N/A	2,560	14,509,695	N/A	96.1%	96.0%	N/A	2,459	13,933,440	N/A
Lighting - Small Business	Prescriptive	569	3,746,524	N/A	100.0%	99.53%	99.73%	N/A	566	3,736,589	N/A	100.0%	100.0%	100.0%	566.00	3,736,589	N/A
	Mid-Market	361	1,627,552	N/A	100.0%	83.00%	83.00%	N/A	300	1,350,868	N/A	100.0%	100.0%	N/A	300.02	1,350,868	N/A
	Custom	318	1,867,304	N/A	100.0%	100.0%	100.0%	N/A	318	1,867,304	N/A	96.0%	96.0%	N/A	305.46	1,792,612	N/A
Motor & Drive Efficiency	Prescriptive & Custom	1,855	12,333,871	N/A	100.0%	100.0%	100.0%	N/A	1,855	12,333,871	N/A	65.0%	65.0%	N/A	1,206	8,017,016	N/A
New Construction	Energy Efficient Buildings	919	3,397,737	11,059	100.0%	100.0%	100.0%	100.0%	919	3,397,737	11,059	93.0%	93.0%	97.0%	855	3,159,895	10,727
	Energy Design Assistance	5,872	27,573,381	42,178	100.0%	100.0%	100.0%	100.0%	5,872	27,573,381	42,178	93.5%	93.8%	99.0%	5,488	25,860,072	41,757
Process Efficiency	Prescriptive and Custom	1,277	10,105,921	N/A	100.0%	100.0%	100.0%	N/A	1,277	10,105,921	N/A	90.0%	90.0%	N/A	1,149	9,095,329	N/A
Recommissioning	Custom	310	6,729,890	1,348	100.0%	100.0%	100.0%	100.0%	310	6,729,890	1,348	90.0%	90.0%	90.0%	279	6,056,901	1,213
Self Direct	Custom	580	2,025,840	N/A	100.0%	100.0%	100.0%	N/A	580	2,025,840	N/A	91.0%	91.0%	N/A	528	1,843,514	N/A
Business Program Total		20,898	131,660,856	72,112	100.0%	99.3%	99.5%	100.0%	20,754	130,961,225	72,112	88.4%	88.3%	95.9%	18,354	115,621,686	69,188

Table 19b: 2015 (Pre-8.1.2015) Residential Segment, Low-Income Segment, and Demand Response Installation Rates, Realization Rates, and Final Net, Verified Savings by Program Component

2015 Products January 1 - July 31, 2015	End-Use/Measure Type	Gross Peak Gen kW	Gross Gen kWh	Gross Dth	Install Rate	Demand (kW) RR	Energy (kWh) RR	Energy (Dth) RR	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
Residential Program																	
Energy Efficient Showerhead	Showerhead	0	334,085	11,348	64.2%	100.0%	100.0%	100.0%	0	214,549	7,288	99.0%	99.0%	99.0%	0	212,404	7,215
	Kitchen Aerator	0	41,575	1,430	42.2%	100.0%	100.0%	100.0%	0	17,528	603	99.0%	99.0%	99.0%	0	17,353	597
	Bath Aerator	0	70,895	2,145	41.7%	100.0%	100.0%	100.0%	0	29,542	894	99.0%	99.0%	99.0%	0	29,246	885
Energy Feedback Residential		3,672	19,760,780	88,933	100.0%	100.0%	100.0%	100.0%	3,672	19,760,780	88,933	100.0%	100.0%	100.0%	3,672	19,760,780	88,933
ENERGY STAR New Homes		684	1,769,740	60,586	100.0%	100.0%	100.0%	100.0%	684	1,769,740	60,586	92.0%	92.0%	92.0%	629	1,628,161	55,739
Evaporative Cooling		2,811	1,784,770	N/A	100.0%	100.0%	100.0%	N/A	2,811	1,784,770	N/A	65.4%	65.0%	N/A	1,837	1,159,845	N/A
High Efficiency Air Conditioning	AC, ASHP	2,053	1,519,860	N/A	100.0%	96.5%	97.4%	N/A	1,982	1,480,952	N/A	67.6%	67.6%	N/A	1,340	1,001,123	N/A
	GSHP	6	29,853	N/A	100.0%	100.0%	100.0%	N/A	6	29,853	N/A	100.0%	100.0%	N/A	6	29,853	N/A
Home Energy Squad		0	0	0	100.0%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	0	0
Home Lighting & Recycling	CFLs	9,868	66,589,806	N/A	100.0%	99.0%	99.0%	N/A	9,769	65,923,908	N/A	70.0%	70.0%	N/A	6,838.56	46,146,736	N/A
	LEDs	3,259	21,994,613	N/A	100.0%	99.0%	99.0%	N/A	3,227	21,774,667	N/A	100.0%	100.0%	N/A	3,226.82	21,774,667	N/A
Home Performance w/ ENERGY STAR		57	184,684	5,603	100.0%	100.0%	100.0%	100.0%	57	184,684	5,603	94.0%	94.0%	94.0%	53	173,602.62	5,267
Insulation & Air Sealing		143	169,952	12,327	100.0%	100.9%	100.9%	102.3%	145	171,482	12,611	89.0%	89.0%	89.0%	129	152,619	11,223
Refrigerator & Freezer Recycling		315	2,759,662	N/A	100.0%	100.0%	100.0%	N/A	315	2,759,662	N/A	57.4%	57.4%	N/A	181	1,584,853	N/A
Residential Heating		367	1,776,160	25,332	100.0%	100.0%	100.7%	100.0%	367	1,789,132	25,332	94.0%	94.0%	77.0%	345	1,681,783.84	19,505
School Education Kits	13W CFL	0	0	N/A	55.2%	100.0%	100.0%	N/A	0	0	N/A	100.0%	100.0%	N/A	0	0	N/A
	18W CFL	0	0	N/A	53.5%	100.0%	100.0%	N/A	0	0	N/A	100.0%	100.0%	N/A	0	0	N/A
	LED	0	0	N/A	60.9%	100.0%	100.0%	N/A	0	0	N/A	100.0%	100.0%	N/A	0	0	N/A
	Showerhead	0	0	0	41.0%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	0	0
	Kitchen Aerator	0	0	0	34.5%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	0	0
	Bathroom Aerator	0	0	0	33.7%	100.0%	100.0%	100.0%	0	0	0	100.0%	100.0%	100.0%	0	0	0
Water Heating		4	33,063	3,072	100.0%	100.0%	100.0%	100.0%	4	33,063	3,072	100.0%	100.0%	90.0%	4	33,063	2,765
Residential Program Total		23,239	118,819,499	210,776	100.0%	99.1%	99.2%	100.1%	23,038	117,724,312	204,921	79.3%	81.0%	93.8%	18,261	95,386,089	192,129
Low-Income Program																	
Energy Savings Kits	CFL	3	30,351	N/A	60.9%	100.0%	100.0%	N/A	2	18,493	N/A	100.0%	100.0%	N/A	2	18,493	N/A
	Showerhead	0	6,878	294	58.9%	100.0%	100.0%	100.0%	0	4,049	173	100.0%	100.0%	100.0%	0	4,049	173
	1.5 gpm Aerator	0	897	39	49.4%	100.0%	100.0%	100.0%	0	443	19	100.0%	100.0%	100.0%	0	443	19
	1.0 gpm Aerator	0	1,495	59	49.4%	100.0%	100.0%	100.0%	0	738	29	100.0%	100.0%	100.0%	0	738	29
Multifamily Weatherization		7	77,127	611	100.0%	100.0%	100.0%	100.0%	7	77,127	611	100.0%	100.0%	100.0%	7	77,127	611
Non-Profit		102	420,729	504	100.0%	100.0%	100.0%	100.0%	102	420,729	504	100.0%	100.0%	100.0%	102	420,729	504
Single-Family Weatherization		76	574,282	20,268	100.0%	100.0%	100.0%	100.0%	76	574,282	20,268	100.0%	100.0%	100.0%	76	574,282	20,268
Low-Income Program Total		188	1,111,758	21,775	99.3%	100.0%	100.0%	100.0%	187	1,095,860	21,605	100.0%	100.0%	100.0%	187	1,095,860	21,605
Demand Response Program																	
Saver's Switch		1,889	33,244	N/A	100.0%	100.0%	100.0%	N/A	1,889	33,244	N/A	100.0%	100.0%	N/A	1,889	33,244	N/A
Demand Response Program Total		1,889	33,244	N/A	100.0%	100.0%	100.0%	N/A	1,889	33,244	N/A	100.0%	100.0%	N/A	1,889	33,244	N/A

Table 19c: 2015 (Post-8.1.2015) Business Segment Installation Rates, Realization Rates, and Final Net, Verified Savings by Program Component

2015 Products August 1 - Dec. 31, 2015	End-Use/Measure Type	Gross Peak Gen kW	Gross Gen kWh	Gross Dth	Install Rate	Demand (kW) RR	Energy (kWh) RR	Energy (Dth) RR	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 Program																	
Commercial Refrigeration	Prescriptive and Custom	216	1,829,190	1,077	100.0%	99.9%	99.9%	100.0%	216.1	1,827,078	1,077	100.0%	100.0%	100.0%	216	1,827,078	1,077
Compressed Air Efficiency	Prescriptive	101	459,858	N/A	100.0%	100.0%	100.0%	N/A	101	459,858	N/A	73.0%	73.0%	N/A	74	335,696	N/A
	Studies & Custom	161	1,547,262	N/A	100.0%	100.0%	100.0%	N/A	161	1,547,262	N/A	87.0%	87.0%	N/A	140	1,346,118	N/A
Computer Efficiency	Prescriptive	293	2,179,845	N/A	100.0%	100.0%	100.0%	N/A	293	2,179,845	N/A	88.0%	88.0%	N/A	258	1,918,264	N/A
Cooling	Prescriptive	1,546	8,485,460	N/A	100.0%	99.40%	99.70%	N/A	1,537	8,460,004	N/A	84.6%	81.3%	N/A	1,301	6,879,083	N/A
	Custom	9	44,615	N/A	100.0%	100.0%	100.0%	N/A	9	44,615	N/A	87.0%	87.0%	N/A	8	38,815	N/A
Custom Efficiency	Custom	113	542,164	4,550	100.0%	100.0%	100.0%	100.0%	113	542,164	4,550	87.0%	87.0%	87.0%	98	471,683	3,959
Data Center Efficiency	Prescriptive and Custom	408	7,471,279	N/A	100.0%	99.9%	99.8%	N/A	408	7,454,842	N/A	93.8%	87.4%	N/A	382	6,513,461	N/A
Energy Management Systems	Custom	28	5,036,273	2,329	100.0%	100.0%	100.0%	100.0%	28	5,036,273	2,329	87.0%	87.0%	90.0%	24	4,381,558	2,096
Heating Efficiency	Prescriptive	N/A	N/A	9,062	100.0%	N/A	N/A	100.0%	N/A	N/A	9,062	N/A	N/A	86.0%	N/A	N/A	7,793
Lighting Efficiency	Prescriptive	2,681	15,802,410	N/A	100.0%	99.9%	99.5%	N/A	2,679	15,723,869	N/A	84.0%	84.0%	N/A	2,250	13,208,050	N/A
	Mid-Market	1,371	6,170,716	N/A	100.0%	83.0%	83.0%	N/A	1,138	5,121,694	N/A	84.0%	84.0%	N/A	956	4,302,223	N/A
	Custom	3,532	22,888,553	N/A	100.0%	100.0%	100.0%	N/A	3,532	22,888,553	N/A	96.0%	96.0%	N/A	3,391	21,973,011	N/A
Lighting - Small Business	Prescriptive	687	5,171,720	400	100.0%	99.5%	99.7%	100.0%	684	5,158,006	400	100.0%	100.0%	100.0%	683.706	5,158,006	400
	Mid-Market	520	2,293,993	0	100.0%	83.00%	83.0%	N/A	432	1,904,014	0	100.0%	100.0%	N/A	431.531	1,904,014	N/A
	Custom	1,226	7,379,146	N/A	100.0%	100.0%	100.0%	N/A	1,226	7,379,146	N/A	96.0%	96.0%	N/A	1,177.288	7,083,981	N/A
Motor & Drive Efficiency	Prescriptive and Custom	1,609	9,105,111	N/A	100.0%	100.0%	100.0%	N/A	1,609	9,105,111	N/A	65.0%	65.0%	N/A	1,046.02	5,918,322	N/A
New Construction	Energy Efficient Buildings	437	2,382,053	4,791	100.0%	100.0%	100.0%	100.0%	437	2,382,053	4,791	93.0%	93.0%	97.0%	406	2,215,309	4,647
	Energy Design Assistance	4,441	17,291,023	53,471	100.0%	100.0%	100.0%	100.0%	4,441	17,291,023	53,471	93.5%	93.8%	99.0%	4,151	16,216,622	52,936
Process Efficiency	Prescriptive and Custom	1,525	12,374,188	N/A	100.0%	100.0%	100.0%	N/A	1,525	12,374,188	N/A	90.0%	90.0%	N/A	1,373	11,136,769	N/A
Recommissioning	Custom	30	438,059	2,075	100.0%	100.0%	100.0%	100.0%	30	438,059	2,075	90.0%	90.0%	90.0%	27	394,253	1,867
Self Direct	Custom	93	80,457	N/A	100.0%	100.0%	100.0%	N/A	93	80,457	N/A	91.0%	91.0%	N/A	85	73,216	N/A
Business Program Total		21,029	128,973,374	77,755	100.0%	98.4%	98.8%	100.0%	20,692	127,398,113	77,755	89.3%	88.9%	96.2%	18,478	113,295,530	74,775

Table 19d: 2015 (Post-8.1.2015) Residential Segment, Low-Income Segment, Pilot, and Demand Response Installation Rates, Realization Rates, and Final Net, Verified Savings by Program Component

2015 Products August 1 - Dec. 31, 2015	End-Use/Measure Type	Gross Peak Gen kW	Gross Gen kWh	Gross Dth	Install Rate	Demand (kW) RR	Energy (kWh) RR	Energy (Dth) RR	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
Residential Program																	
Energy Efficient Showerhead	Showerhead	103	1,522,868	28,452	64.7%	100.0%	100.0%	100.0%	66	985,011	18,403	99.0%	99.0%	99.0%	65.672	975,161	48,288
	Kitchen Aerator	12	111,201	3,667	34.6%	100.0%	100.0%	100.0%	4	38,453	1,268	99.0%	99.0%	99.0%	4.097	38,069	1,967
	Bath Aerator	29	269,397	4,286	35.7%	100.0%	100.0%	100.0%	10	96,213	1,531	99.0%	99.0%	99.0%	10.264	95,250	6,095
Energy Feedback Residential		2,735	7,081,046	12,234	100.0%	100.0%	100.0%	100.0%	2,735	7,081,046	12,234	100.0%	100.0%	100.0%	2,735	7,081,046	12,234
ENERGY STAR New Homes		794	2,001,304	64,628	100.0%	100.0%	100.0%	100.0%	794	2,001,304	64,628	92.0%	92.0%	92.0%	730	1,841,200	59,457
Evaporative Cooling		2,910	1,895,902	N/A	100.0%	100.0%	100.0%	N/A	2,910	1,895,902	N/A	65.2%	65.0%	N/A	1,897	1,232,316	N/A
High Efficiency Air Conditioning	AC, ASHP	3,195	2,373,989	N/A	100.0%	96.5%	97.4%	N/A	3,085	2,313,215	N/A	67.6%	67.6%	N/A	2,085	1,563,733	N/A
	GSHP	2	2,708	N/A	100.0%	100.0%	100.0%	N/A	2	2,708	N/A	100.0%	100.0%	N/A	2	2,708	N/A
Home Energy Squad		7	31,708	312	100.0%	100.0%	100.0%	100.0%	7	31,708	312	100.0%	100.0%	100.0%	7	31,708	312
Home Lighting & Recycling	CFLs	8,536	43,161,737	N/A	100.0%	99.0%	99.0%	N/A	8,451	42,730,119	N/A	70.0%	70.0%	N/A	4,354	29,977,642	N/A
	LEDs	2,173	22,507,050	N/A	100.0%	99.0%	99.0%	N/A	2,151	22,281,980	N/A	100.0%	100.0%	N/A	3,115	22,325,373	N/A
Home Performance w/ ENERGY STAR		106	147,269	7,317	100.0%	100.0%	100.0%	100.0%	106	147,269	7,317	116.0%	116.0%	116.0%	123	170,832	8,488
Insulation & Air Sealing		147	197,553	13,500	100.0%	100.9%	100.9%	102.3%	148	199,331	13,810	89.0%	89.0%	89.0%	132.12	177,404	12,291
Refrigerator & Freezer Recycling		594	5,203,551	N/A	100.0%	100.0%	100.0%	N/A	594	5,203,551	N/A	57.4%	57.4%	N/A	341	2,984,244	N/A
Residential Heating		383	1,858,566	26,384	100.0%	100.0%	100.7%	100.0%	383	1,872,139	26,384	94.0%	94.0%	77.0%	360	1,759,810	20,316
School Education Kits	13W CFL	224	1,942,554	N/A	55.0%	100.0%	100.0%	N/A	123	1,068,793	N/A	100.0%	100.0%	N/A	123	1,068,793	N/A
	18W CFL	381	3,306,785	N/A	53.2%	100.0%	100.0%	N/A	203	1,757,887	N/A	100.0%	100.0%	N/A	203	1,757,887	N/A
	LED	151	1,308,207	N/A	60.7%	100.0%	100.0%	N/A	92	793,951	N/A	100.0%	100.0%	N/A	92	793,951	N/A
	Showerhead	30	1,536,252	59,847	39.7%	100.0%	100.0%	100.0%	12	609,277	23,735	100.0%	100.0%	100.0%	12	609,277	23,735
	Kitchen Aerator	7	192,502	7,554	32.8%	100.0%	100.0%	100.0%	2	63,179	2,479	100.0%	100.0%	100.0%	2	63,179	2,479
	Bathroom Aerator	8	296,960	10,951	32.8%	100.0%	100.0%	100.0%	3	97,284	3,588	100.0%	100.0%	100.0%	3	97,284	3,588
Water Heating		6	50,104	2,351	100.0%	100.0%	100.0%	100.0%	6	50,104	2,351	100.0%	100.0%	90.0%	6	50,104	2,116
Residential Program Total		22,532	96,999,214	241,483	98.1%	99.0%	99.3%	100.1%	21,886	91,320,427	178,040	74.9%	81.8%	113.1%	16,401	74,696,975	201,365
Low-Income Program																	
Energy Savings Kits	CFL	138	1,213,834	N/A	60.9%	100.0%	100.0%	100.0%	84	739,589	N/A	100.0%	100.0%	100.0%	84	739,589	N/A
	Showerhead	10	344,379	12,222	58.9%	100.0%	100.0%	100.0%	6	202,736	7,195	100.0%	100.0%	100.0%	6	202,736	7,195
	1.5 gpm Aerator	4	110,272	1,583	49.4%	100.0%	100.0%	100.0%	2	54,419	781	100.0%	100.0%	100.0%	2	54,419	781
	1.0 gpm Aerator	0	0	2,303	49.4%	100.0%	100.0%	100.0%	0	0	1,137	100.0%	100.0%	100.0%	0	0	1,137
Multifamily Weatherization		212	1,845,543	10,344	100.0%	100.0%	100.0%	100.0%	212	1,845,543	10,344	100.0%	100.0%	100.0%	212	1,845,543	10,344
Non-Profit		328	1,479,442	2,816	100.0%	100.0%	100.0%	100.0%	328	1,479,442	2,816	100.0%	100.0%	100.0%	328	1,479,442	2,816
Single-Family Weatherization		77	1,085,850	16,497	100.0%	100.0%	100.0%	100.0%	77	1,085,850	16,497	100.0%	100.0%	100.0%	77	1,085,850	16,497
Low-Income Program Total		769	6,079,320	45,766	92.2%	100.0%	100.0%	100.0%	709	5,407,579	38,770	100.0%	100.0%	100.0%	709	5,407,579	38,770
Planning & Research																	
Mutifamily Buildings Pilot		5	53,507	183	100.0%	100.0%	100.0%	100.0%	5	53,507	183	100.0%	100.0%	100.0%	5	53,507	183
Planning and Research Total		5	53,507	183	100.0%	100.0%	100.0%	100.0%	5	53,507	183	100.0%	100.0%	100.0%	5	53,507	183
Demand Response Program																	
Saver's Switch		8,647	112,122	N/A	100.0%	100.0%	100.0%	N/A	8,647	112,122	N/A	100.0%	100.0%	N/A	8,647	112,122	N/A
Demand Response Program Total		8,647	112,122	N/A	100.0%	100.0%	100.0%	N/A	8,647	112,122	N/A	100.0%	100.0%	N/A	8,647	112,122	N/A

Table 19e: 2015 (TOTAL) Business Segment Installation Rates, Realization Rates, and Final Net, Verified Savings by Program Component

2015 Products	End-Use/Measure Type	Gross Peak Gen kW	Gross Gen kWh	Gross Dth	Install Rate	Demand (kW) RR	Energy (kWh) RR	Energy (Dth) RR	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 Program																	
Commercial Refrigeration	Prescriptive and Custom	475	4,343,888	1,272	100.0%	99.9%	99.9%	100.0%	475	4,338,872	1,272	98.3%	99.1%	100.0%	467	4,298,367	1,272
Compressed Air Efficiency	Prescriptive	224	1,063,317	N/A	100.0%	100.0%	100.0%	N/A	224	1,063,317	N/A	80.7%	80.9%	N/A	181	860,748	N/A
	Studies & Custom	437	3,581,769	N/A	100.0%	100.0%	100.0%	N/A	437	3,581,769	N/A	87.0%	87.0%	N/A	380	3,116,283	N/A
Computer Efficiency	Prescriptive	758	5,640,824	N/A	100.0%	100.0%	100.0%	N/A	758	5,640,824	N/A	76.4%	76.4%	N/A	579	4,307,873	N/A
Cooling	Prescriptive	2,802	14,094,960	N/A	100.0%	99.4%	99.7%	N/A	2,786	14,052,676	N/A	82.6%	80.8%	N/A	2,300	11,353,944	N/A
	Custom	9	90,705	N/A	100.0%	100.0%	100.0%	N/A	9	90,705	N/A	87.0%	87.0%	N/A	8	78,917	N/A
Custom Efficiency	Custom	900	8,420,415	5,367	100.0%	100.0%	100.0%	100.0%	900	8,420,415	5,367	87.0%	87.0%	87.9%	783	7,325,811	4,719
Data Center Efficiency	Prescriptive and Custom	999	15,101,907	N/A	100.0%	99.9%	99.8%	N/A	999	15,074,788	N/A	94.7%	92.2%	N/A	942	13,902,972	N/A
Energy Management Systems	Custom	46	8,152,754	10,673	100.0%	100.0%	100.0%	100.0%	46	8,152,754	10,673	87.0%	87.0%	90.0%	40	7,093,365	9,606
Heating Efficiency	Prescriptive	N/A	N/A	17,233	100.0%	N/A	N/A	100.0%	N/A	N/A	17,233	N/A	N/A	86.0%	N/A	N/A	14,820
Lighting Efficiency	Prescriptive	4,766	28,775,094	N/A	100.0%	99.9%	99.5%	N/A	4,762	28,632,077	N/A	84.0%	84.0%	N/A	4,001	24,052,357	N/A
	Mid-Market	1,786	8,041,281	N/A	100.0%	83.0%	83.0%	N/A	1,482	6,674,263	N/A	84.0%	84.0%	N/A	1,245	5,606,841	N/A
	Custom	6,092	37,395,800	N/A	100.0%	100.0%	100.0%	N/A	6,092	37,395,800	N/A	96.0%	96.0%	N/A	5,850	35,906,450	N/A
Lighting - Small Business	Prescriptive	1,256	8,917,691	400	100.0%	99.5%	99.7%	100.0%	1,250	8,894,044	400	100.0%	100.0%	100.0%	1,250	8,894,595	400
	Mid-Market	881	3,921,299	N/A	100.0%	83.0%	83.0%	N/A	732	3,254,679	N/A	100.0%	100.0%	N/A	732	3,254,882	N/A
	Custom	1,544	9,245,661	N/A	100.0%	100.0%	100.0%	N/A	1,544	9,245,661	N/A	96.0%	96.0%	N/A	1,483	8,876,592	N/A
Motor & Drive Efficiency	Prescriptive and Custom	3,464	21,438,007	N/A	100.0%	100.0%	100.0%	N/A	3,464	21,438,007	N/A	65.0%	65.0%	N/A	2,252	13,935,338	N/A
New Construction	Energy Efficient Buildings	1,356	5,779,535	15,850	100.0%	100.0%	100.0%	100.0%	1,356	5,779,535	15,850	93.0%	93.0%	97.0%	1,261	5,375,204	15,374
	Energy Design Assistance	10,312	44,862,554	95,649	100.0%	100.0%	100.0%	100.0%	10,312	44,862,554	95,649	93.5%	93.8%	99.0%	9,639	42,076,693	94,692
Process Efficiency	Prescriptive and Custom	2,802	22,478,785	N/A	100.0%	100.0%	100.0%	N/A	2,802	22,478,785	N/A	90.0%	90.0%	N/A	2,522	20,232,098	N/A
Recommissioning	Custom	340	7,167,902	3,423	100.0%	100.0%	100.0%	100.0%	340	7,167,902	3,423	90.0%	90.0%	90.0%	306	6,451,154	3,081
Self Direct	Custom	673	2,106,288	N/A	100.0%	100.0%	100.0%	N/A	673	2,106,288	N/A	91.0%	91.0%	N/A	612	1,916,730	N/A
Business Program Total		41,925	260,620,435	149,867	100.0%	98.9%	99.1%	100.0%	41,443	258,345,712	149,867	88.9%	88.6%	96.1%	36,832	228,917,215	143,964

Table 19f: 2015 (TOTAL) Residential Segment and Low-Income Segment Installation Rates, Realization Rates, and Final Net, Verified Savings by Program Component

2015 Products	End-Use/Measure Type	Gross Peak Gen kW	Gross Gen kWh	Gross Dth	Install Rate	Demand (kW) RR	Energy (kWh) RR	Energy (Dth) RR	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
Residential Program																	
Energy Efficient Showerheads	Showerhead	103	1,857,117	39,800	64.6%	100.0%	100.0%	100.0%	66	1,199,667	25,710	99.0%	99.0%	99.0%	66	1,187,565	55,502
	Kitchen Aerator	12	152,789	5,097	36.6%	100.0%	100.0%	100.0%	4	55,986	1,868	99.0%	99.0%	99.0%	4	55,422	2,564
	Bath Aerator	29	340,321	6,431	37.0%	100.0%	100.0%	100.0%	11	125,765	2,376	99.0%	99.0%	99.0%	10	124,497	6,979
Energy Feedback Residential		6,407	26,842,594	54,542.7	100.0%	100.0%	100.0%	100.0%	6,407	26,842,594	101,167	100.0%	100.0%	100.0%	6,407	26,841,827	101,167
ENERGY STAR New Homes		1,477	3,771,261	125,214	100.0%	100.0%	100.0%	100.0%	1,477	3,771,261	125,214	92.0%	92.0%	92.0%	1,359	3,469,361	115,197
Evaporative Cooling		5,722	3,680,878	N/A	100.0%	100.0%	100.0%	N/A	5,722	3,680,878	N/A	65.3%	65.0%	N/A	3,734	2,392,160	N/A
High Efficiency Air Conditioning	AC, ASHP	5,249	3,894,106	N/A	100.0%	96.5%	97.4%	N/A	5,067	3,794,417	N/A	67.6%	67.6%	N/A	3,425	2,564,857	N/A
	GSHP	8	32,561	N/A	100.0%	100.0%	100.0%	N/A	8	32,561	N/A	100.0%	100.0%	N/A	8	32,561	N/A
Home Energy Squad		7	31,712	312	100.0%	100.0%	100.0%	100.0%	7	31,712	312	100.0%	100.0%	100.0%	7	31,708	312
Home Lighting & Recycling	CFL	16,225	110,101,586	N/A	100.0%	99.0%	99.0%	N/A	16,062	109,000,570	N/A	70.0%	70.0%	N/A	11,192	76,124,378	N/A
	LED	6,433	44,638,678	N/A	100.0%	99.0%	99.0%	N/A	6,369	44,192,291	N/A	100.0%	100.0%	N/A	6,342	44,100,040	N/A
Home Performance w/ ENERGY STAR		163	331,969	12,920	100.0%	100.0%	100.0%	100.0%	163	331,969	12,920	108.3%	103.8%	106.5%	176	344,435	13,754
Insulation & Air Sealing		291	367,527	25,827	100.0%	100.9%	100.9%	102.3%	293	370,834	26,409	89.0%	89.0%	89.0%	261	330,023	23,515
Refrigerator & Freezer Recycling		909	7,963,777	N/A	100.0%	100.0%	100.0%	N/A	909	7,963,777	N/A	57.4%	57.4%	N/A	521	4,569,097	N/A
Residential Heating		750	3,634,927	51,716	100.0%	100.0%	100.7%	100.0%	750	3,661,474	51,716	94.0%	94.0%	77.0%	705	3,441,594	39,821
School Education Kits	13W CFL	224	1,942,765	0	55.0%	100.0%	100.0%	N/A	123	1,068,909	N/A	100.0%	100.0%	N/A	123	1,068,793	N/A
	18W CFL	381	3,307,143	0	53.2%	100.0%	100.0%	N/A	203	1,759,400	N/A	100.0%	100.0%	N/A	203	1,757,887	N/A
	LED	151	1,308,349	0	60.7%	100.0%	100.0%	N/A	92	794,168	N/A	100.0%	100.0%	N/A	92	793,951	N/A
	Showerhead	30	1,536,418	59,847	39.7%	100.0%	100.0%	100.0%	12	609,958	23,759	100.0%	100.0%	100.0%	12	609,277	23,735
	Kitchen Aerator	7	192,523	7,554	32.8%	100.0%	100.0%	100.0%	2	63,148	2,478	100.0%	100.0%	100.0%	2	63,179	2,479
	Bathroom Aerator	8	296,992	10,951	32.8%	100.0%	100.0%	100.0%	3	97,414	3,592	100.0%	100.0%	100.0%	3	97,284	3,588
Water Heating		10	83,172	5,423	100.0%	100.0%	100.0%	100.0%	10	83,172	5,423	100.0%	100.0%	90.0%	10	83,167	4,881
Residential Program Total		44,595	216,309,164	405,634	99.0%	99.1%	99.3%	100.1%	43,760	209,531,924	382,944	79.2%	81.2%	102.8%	34,663	170,083,064	393,494
Low-Income Program																	
Energy Savings Kits	CFL	141	1,244,316	N/A	60.9%	100.0%	100.0%	N/A	86	758,162	N/A	100.0%	100.0%	N/A	86	758,082	N/A
	Showerhead	10	345,313	12,516	58.9%	100.0%	100.0%	100.0%	6	203,286	7,368	100.0%	100.0%	100.0%	6	206,785	7,368
	1.5 gpm Aerator	4	111,779	1,623	49.4%	100.0%	100.0%	100.0%	2	55,163	801	100.0%	100.0%	100.0%	2	54,862	801
	1.0 gpm Aerator	7	77,127	2,362	49.4%	100.0%	100.0%	100.0%	4	38,062	1,166	100.0%	100.0%	100.0%	0	738	1,166
Multifamily Weatherization		219	1,922,870	10,716	100.0%	100.0%	100.0%	100.0%	219	1,922,870	10,716	100.0%	100.0%	100.0%	219	1,922,670	10,955
Non-Profit		430	1,900,332	3,700	100.0%	100.0%	100.0%	100.0%	430	1,900,332	3,700	100.0%	100.0%	100.0%	430	1,900,171	3,321
Single-Family Weatherization		153	1,660,249	43,552	100.0%	100.0%	100.0%	100.0%	153	1,660,249	36,765	100.0%	100.0%	100.0%	153	1,660,132	36,765
Low-Income Program Total		964	7,261,986	74,467	93.3%	100.0%	100.0%	100.0%	899	6,538,123	60,515	99.6%	99.5%	99.8%	895	6,503,439	60,375
Planning and Research																	
Mutifamily Buildings Pilot		5	53,507	0.0	100.0%	100.0%	100.0%	100.0%	5	53,507	0	100.0%	100.0%	100.0%	5	53,507	183
Planning and Research Total		5	53,507	0	100.0%	100.0%	100.0%	100.0%	5	53,507	0	100.0%	100.0%	100.0%	5	53,507	183
Demand Response Program																	
Saver's Switch		10,537	145,378	N/A	100.0%	100.0%	100.0%	N/A	10,537	145,378	N/A	100.0%	100.0%	N/A	10,536	145,366	N/A
Demand Response Program Total		10,537	145,378	N/A	100.0%	100.0%	100.0%	N/A	10,537	145,378	N/A	100.0%	100.0%	N/A	10,536	145,366	N/A
	2015 TOTAL	98,026	484,390,471	629,968	99.5%	99.1%	99.2%	100.1%	96,644	474,614,645	593,326	85.8%	85.5%	100.8%	82,932	405,702,592	598,015

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 20 and 21 below.

The Company is reporting 2015 electric and natural gas portfolio MTRC test ratio results of 1.66 and 1.80, respectively. These results are shown in Table 20 and Table 21. The portfolio results are based upon electric net economic benefits of $134.1 million and natural gas net economic benefits $25.1 million. The Company has provided the cost-effectiveness results (MTRC test ratios) for electric and gas products in the following tables within this report:[29]

- 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)
- Indirect Program: Tables 16a (electric) and 16b (gas)
- Demand Response Program: Table 18 (electric)

[29] 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 20: 2015 Electric DSM Portfolio Cost-Benefit Analysis (CBA)

PORTFOLIO TOTAL — **2015 ELECTRIC ACTUAL**

2015 Net Present Cost Benefit Summary Analysis For All Participants

	Participant Test ($Total)	Utility Test ($Total)	Rate Impact Test ($Total)	Modified TRC Test ($Total)
Benefits				
Avoided Revenue Requirements				
Generation Capacity	N/A	$79,260,666	$79,260,666	$79,260,666
Transmission & Distributior	N/A	$8,410,317	$8,410,317	$8,410,317
Marginal Energy	N/A	$165,790,827	$165,790,827	$165,790,827
Avoided Emissions (CO2)	N/A	N/A	N/A	$0
Subtotal				$253,461,810
Non-Energy Benefits Adder (10.2%)				$25,804,680
Subtotal	N/A	$253,461,810	$253,461,810	$279,266,489
Other Benefits				
Bill Reduction - Electric	$367,681,921	N/A	N/A	N/A
Incentives	$54,804,738	N/A	N/A	$54,804,738
Incremental Capital Savings	$0	N/A	N/A	$0
Incremental O&M Savings	$95,644,941	N/A	N/A	$2,268,864
Subtotal	$518,131,599	N/A	N/A	$57,073,601
Total Benefits	$518,131,599	$253,461,810	$253,461,810	$336,340,091
Costs				
Utility Project Costs				
Program Planning & Design	N/A	$369,849	$369,849	$369,849
Administration & Program Deliv	N/A	$24,127,126	$24,127,126	$24,127,126
Advertising/Promotion/Custom	N/A	$6,026,105	$6,026,105	$6,026,105
Participant Rebates and Incentiv	N/A	$54,804,738	$54,804,738	$54,804,738
Equipment & Installation	N/A	$22,495	$22,495	$22,495
Measurement and Verification	N/A	$1,775,374	$1,775,374	$1,775,374
Subtotal	N/A	$87,125,687	$87,125,687	$87,125,687
Utility Revenue Reduction				
Revenue Reduction - Electric	N/A	N/A	$305,371,006	N/A
Subtotal	N/A	N/A	$305,371,006	N/A
Participant Costs				
Incremental Capital Costs	$126,288,535	N/A	N/A	$115,062,810
Incremental O&M Costs	$0	N/A	N/A	$0
Subtotal	$126,288,535	N/A	N/A	$115,062,810
Total Costs	$126,288,535	$87,125,687	$392,496,694	$202,188,497
Net Benefit (Cost)	$391,843,064	$166,336,123	($139,034,884)	$134,151,594
Benefit/Cost Ratio	4.10	2.91	0.65	1.66

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

Input Summary and Totals

Program Inputs per Customer kW		
Lifetime (Weighted on Generator kWh)	A	14.3 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	28.91%
Gross Load Factor at Customer	E	16.39%
Net-to-Gross (Energy)	F	86.5%
Net-to-Gross (Demand)	G	86.7%
Transmission Loss Factor (Energy)	H	6.989%
Transmission Loss Factor (Demand)	I	7.449%
Installation Rate (Energy)	**J**	**96.9%**
Installation Rate (Demand)	**K**	**97.7%**
MTRC Net Benefit (Cost)	**L**	$428
MTRC Non-Energy Benefit Adder	**M**	$82
Net coincident kW Saved at Generator	**(G x C x K) x D / (1 - I)**	0.2645 kW
Gross Annual kWh Saved at Customer	(B x E x C)	1,436 kWh
Net Annual kWh Saved at Customer	**(F x (B x E x C x J))**	1,204 kWh
Net Annual kWh Saved at Generator	**(F x (B x E x C x J)) / (1 - H)**	1,294 kWh

Program Summary All Participants

Total Budget	N	**$87,125,687**
Gross kW Saved at Customer	O	313,491 kW
Net coincident kW Saved at Generator	**(G x O x K) x D / (1 - I)**	**82,932 kW**
Gross Annual kWh Saved at Customer	(B x E x O)	450,155,647 kWh
Gross Installed Annual kWh Saved at Custome	**(B x E x O x J)**	436,096,945 kWh
Net Annual kWh Saved at Customer	(F x (B x E x O x J))	377,346,724 kWh
Net Annual kWh Saved at Generator	**((F x (B x E x O x J)) / (1 - H))**	**405,702,592 kWh**
TRC Net Benefits with Adder	(O x L)	**$134,151,594**
TRC Net Benefits without Adder	(O x (L - M))	**$108,346,914**
Utility Program Cost per kWh Lifetime		**$0.0150**
Utility Program Cost per kW at Gen		**$1,051**

Table 21: 2015 Natural Gas DSM Portfolio Cost-Benefit Analysis (CBA)

PORTFOLIO TOTAL			2015	GAS	ACTUAL

2015 Net Present Cost Benefit Summary Analysis For All Participants

	Participant Test ($Total)	Utility Test ($Total)	Rate Impact Test ($Total)	Modified TRC Test ($Total)
Benefits				
Avoided Revenue Requirements				
Commodity Cost Reduction	N/A	$31,896,933	$31,896,933	$31,896,933
Variable O&M Savings	N/A	$215,054	$215,054	$215,054
Demand Savings	N/A	$2,820,312	$2,820,312	$2,820,312
Subtotal				$34,932,299
Emissions Non-Energy Benefits Adder (7.3%)				$2,537,757
Subtotal	N/A	$34,932,299	$34,932,299	$37,470,056
Other Benefits				
Bill Reduction - Gas	$55,231,553	N/A	N/A	N/A
Incentives	$7,222,808	N/A	N/A	$7,222,808
Incremental Capital Savings	$0	N/A	N/A	$0
Incremental O&M Savings	$23,269,689	N/A	N/A	$11,994,994
Subtotal	$85,724,050	N/A	N/A	$19,217,803
Total Benefits	$85,724,050	$34,932,299	$34,932,299	$56,687,858
Costs				
Utility Project Costs				
Program Planning & Design	N/A	$97,840	$97,840	$97,840
Administration & Program Deliv	N/A	$4,009,563	$4,009,563	$4,009,563
Advertising/Promotion/Custom	N/A	$796,663	$796,663	$796,663
Participant Rebates and Incentiv	N/A	$7,222,808	$7,222,808	$7,222,808
Equipment & Installation	N/A	$14,054	$14,054	$14,054
Measurement and Verification	N/A	$739,588	$739,588	$739,588
Subtotal	N/A	$12,880,516	$12,880,516	$12,880,516
Utility Revenue Reduction				
Revenue Reduction - Gas	N/A	N/A	$45,554,305	N/A
Subtotal	N/A	N/A	$45,554,305	N/A
Participant Costs				
Incremental Capital Costs	$19,900,393	N/A	N/A	$18,636,902
Incremental O&M Costs	$0	N/A	N/A	$0
Subtotal	$19,900,393	N/A	N/A	$18,636,902
Total Costs	$19,900,393	$12,880,516	$58,434,821	$31,517,418
Net Benefit (Cost)	$65,823,657	$22,051,783	($23,502,522)	$25,170,440
Benefit/Cost Ratio	4.31	2.71	0.60	1.80

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

Input Summary and Totals

Program Assumptions:		
Lifetime (Weighted on Dth)	A	14.11 years
Net-to-Gross (Weighted on Dth)	B	94.36%
Install Rate (Weighted on Dth)	C	89.3%

Program Totals:		
Total Dth/Yr Saved	F	**598,015**
Utility Costs per Net Dth/Yr	G	$21.54
Net Benefit (Cost) per Gross Dth/Yr	H	$42.09
Non-Energy Benefits Adder per Gross Dth/Yr	I	$4.24
Annual Dth/$M	($1M / G)	**46,428**
Total Utility Budget	(G x F)	**$12,880,516**
Total MTRC Net Benefits with Adder	(F x H)	**$25,170,440**
Total MTRC Net Benefits without Adder	(H - I) x F	**$22,632,684**
Utility Program Cost per Net Dth Lifetime	(G / A)	**$1.53**

Appendix A: Avoided Cost Assumptions

The following sections summarize the avoided cost assumptions Public Service has made in order to perform the cost-effectiveness tests for electric and gas programs, and for which the Company is asking for approval of for use in the status reports and incentives calculations for 2015 and 2016 achievements.

A. 2015 (Pre-8.1.2015) Electric Programs

In order to determine the cost-effectiveness of its electric energy efficiency and load management programs from January 1, 2015 through July 31, 2015, 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 CO_2)**
(*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 CO_2 emissions. For this reason, this value is set to $0 for all future years.

B. <u>2015 (Post-8.1-2015) Electric Programs</u>

In order to determine the cost-effectiveness of its electric energy efficiency and load management programs, from August 1, 2015 through December 31, 2015, 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 plan.

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 (Docket No. 11A-869E) for a gas-fired combustion turbine (CT) referred to as a "Resource Acquisition Period (RAP) CT" in compliance with paragraph 96 in Decision C14-0731 (Docket No. 13A-0686EG). These values exclude the ancillary services adjustments per paragraph 97 in this same decision.

	CT		CT
Year	**Gen Capacity $/kW-mo**	**Year**	**Gen Capacity $/kW-mo**
2015	$8.19	**2026**	$10.53
2016	$8.38	**2027**	$10.77
2017	$8.57	**2028**	$11.02
2018	$8.77	**2029**	$11.27
2019	$8.97	**2030**	$11.53
2020	$9.18	**2031**	$11.80
2021	$9.39	**2032**	$12.07
2022	$9.61	**2033**	$12.35
2023	$9.83	**2034**	$12.64
2024	$10.06	**2035**	$12.93
2025	$10.29		

2. **Estimated Annual Avoided Transmission and Distribution (T&D) Capacity Costs (*Source:* Public Service Resource Planning)**
Paragraph 97 in Decision C14-0731 (Docket No. 13A-0686EG) required the Company to "….study the avoided transmission and distribution capacity costs and propose values in its DSM Biennial Plan for 2015 through 2016."

For avoided transmission capacity costs, the assumed avoided generation plant is a Combustion Turbine (CT) plant, which can be located within the Company's footprint and generally does not require any transmission investment. Therefore avoidance of this generation capacity does not entail any avoidance of transmission; the avoided transmission capacity cost should be set to $0/kW-yr.

Public Service plans the distribution system for existing system upgrades and also develops plans for new developments using standard design practices. In order for Public Service to size its distribution system differently, the specific DSM locations and types of DSM measures would need to be known and guaranteed during the initial engineering and design phase. However, the installation of energy efficiency measures is a customer choice that occurs after the distribution system is designed and constructed. Therefore, sizing the system differently after it is constructed is not feasible. Given this, the Company has set the avoided distribution value to $0/kW-yr.

Thus, the Company utilized a zero value for avoidance of T&D capacity costs attributable to energy efficiency and demand response achievements in this Plan.

3. **Estimated Annual Avoided Energy Costs (*Source:* Public Service Resource** Planning Analytics**)**
In order to determine avoided energy costs, the Company's Resource Planning Analytics group produced two Strategist runs, one with and one without the level of DSM that is expected to be acquired from January 1, 2015 through 2020. These runs simulated the economic dispatch of the Company's generation fleet using assumptions regarding must-run plants, must-take resources, minimum and maximum generator output capability, unit heat rates, and unit fuel prices consistent with what the Company had used in the Prosym model runs that had been used by the Company to determine the avoided energy costs as initially proposed in this Proceeding. Consistent with the method proposed by the Company in Proceeding No. 13A-0686EG, the avoided energy costs

attributable to future DSM were determined using a comparison of the annual total system variable costs (with and without future DSM), to the annual total energy served (MWh) with and without future DSM. Including variable O&M, fuel (including a gas price volatility mitigation adder (GPVM)), wind integration and cycling costs, and dump energy.

Simple-Average Hourly DSM Avoided Energy			
Year	**$/MWh**	**Year**	**$/MWh**
2015	$33.73	**2026**	$57.47
2016	$32.98	**2027**	$57.21
2017	$35.22	**2028**	$58.14
2018	$40.66	**2029**	$59.97
2019	$43.11	**2030**	$61.94
2020	$47.19	**2031**	$63.72
2021	$51.13	**2032**	$62.06
2022	$51.80	**2033**	$65.32
2023	$54.38	**2034**	$64.86
2024	$56.59	**2035**	$66.19
2025	$55.31		

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

In the Public Services Company of Colorado's 2012 Renewable Energy Standard Compliance Plan (Docket No. 11A-418E), the base-case assumed zero cost for CO_2 emissions. For this reason, this value is set to $0 for all future years.

C. 2015 (Pre-8.1.2015) Natural Gas Programs

In order to determine the cost-effectiveness of its electric energy efficiency and load management programs from January 1, 2015 through July 31, 2015, 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

D. 2015 (Post-8.1.2015) Gas Programs

In order to determine the cost-effectiveness of its gas programs from August 1, 2015 through December 31, 2015, 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 in this Plan.

1. Estimated Commodity Cost of Gas (*Source:* Public Service Gas Resource Planning)
The following table outlines the current gas price forecast as of August 2014 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
2015	$3.87	**2026**	$6.02
2016	$3.93	**2027**	$6.17
2017	$4.10	**2028**	$6.28
2018	$4.31	**2029**	$6.51
2019	$4.50	**2030**	$6.69
2020	$4.71	**2031**	$6.86
2021	$4.94	**2032**	$6.98
2022	$5.13	**2033**	$7.17
2023	$5.37	**2034**	$7.39
2024	$5.70	**2035**	$7.52
2025	$5.83		

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
2015-2035	$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 CIG firm transportation rate to estimate this cost.

Year	$/Dth
2015-2035	$50.37

Appendix B: Achievements from Each Plan-Year

Decision No. C13-1493-I, Ordering Paragraph 4 authorized the Company to continue the 2014 DSM Plan into calendar year (CY) 2015. The savings achievements from January 1, 2015 – July 31, 2015, which utilize assumptions from the 2014 DSM Plan, are shown in Table 22. The savings achievements from August 1, 2015 – December 31, 2015, which utilize assumptions from the 2015 DSM Plan, are shown in Table 23.

Table 22: 2015 Achievements, January – July

January - July 2015	Net Generator kW	Net Generator kWh	Net Annual Dth Savings
Business Program			
Commercial Refrigeration Efficiency	251	2,471,289	195
Compressed Air Efficiency	347	2,295,217	
Computer Efficiency	321	2,389,610	
Cooling	999	4,514,963	
Custom Efficiency	685	6,854,128	760
Data Center Efficiency	560	7,389,511	
Energy Management Systems	16	2,711,807	7,510
Heating Efficiency			7,027
LED Street Lights			
Lighting Efficiency	4,499	26,082,365	
Lighting - Small Business	1,171	6,880,069	
Motor & Drive Efficiency	1,206	8,017,016	
New Construction	6,344	29,019,966	52,484
Process Efficiency	1,149	9,095,329	
Recommissioning	279	6,056,901	1,213
Self Direct	527	1,843,514	
Business Program Total	**18,354**	**115,621,685**	**69,189**
Residential Program			
Energy Efficient Showerhead	0	259,003	8,696
Energy Feedback Residential	3,672	19,760,780	88,933
ENERGY STAR New Homes	629	1,628,161	55,739
Evaporative Cooling	1,837	1,159,845	
High Efficiency Air Conditioning	1,346	1,030,976	
Home Energy Squad			
Home Lighting & Recycling	10,065	67,921,403	
Home Performance with ENERGY STAR	53	173,603	5,267
Insulation & Air Sealing	129	152,619	11,223
Refrigerator & Freezer Recycling	181	1,584,853	
Residential Heating	345	1,681,784	19,505
School Education Kits			
Water Heating	4	33,063	2,765
Residential Program Total	**18,261**	**95,386,090**	**192,128**
Low-Income Program			
Energy Savings Kit	2	23,723	221
Multi-Family Weatherization	7	77,127	611
Non-Profit Energy Efficiency	101	420,729	504
Single-Family Weatherization	76	574,282	20,268
Low-Income Program Total	**186**	**1,095,861**	**21,604**
EE PORTFOLIO TOTAL	**36,802**	**212,103,636**	**282,921**
Demand Response Program			n/a
Saver's Switch	1,889	33,244	n/a
Smart Thermostat Pilot - DR			n/a
Small Business Smart Thermostat Pilot			n/a
Building Optimization DR Pilot			n/a
DR PORTFOLIO TOTAL	**1,889**	**33,244**	**n/a**
PORTFOLIO TOTAL	**38,691**	**212,136,880**	**282,921**

Table 23: 2015 Achievements, August – December

August - December 2015	Net Generator kW	Net Generator kWh	Net Annual Dth Savings
Business Program			
Commercial Refrigeration Efficiency	216	1,827,078	1,077
Compressed Air Efficiency	214	1,681,814	
Computer Efficiency	258	1,918,263	
Cooling	1,309	6,917,898	
Custom Efficiency	98	471,683	3,959
Data Center Efficiency	382	6,513,461	
Energy Management Systems	24	4,381,558	2,096
Heating Efficiency			7,793
LED Street Lights			
Lighting Efficiency	6,597	39,483,283	
Lighting - Small Business	2,293	14,146,001	400
Motor & Drive Efficiency	1,046	5,918,322	
New Construction	4,557	18,431,931	57,583
Process Efficiency	1,373	11,136,769	
Recommissioning	27	394,253	1,867
Self Direct	85	73,216	
Business Program Total	**18,479**	**113,295,530**	**74,775**
Residential Program			
Energy Efficient Showerhead	80	1,108,481	56,350
Energy Feedback Residential	2,735	7,081,047	12,234
ENERGY STAR New Homes	730	1,841,200	59,458
Evaporative Cooling	1,897	1,232,316	
High Efficiency Air Conditioning	2,087	1,566,441	
Home Energy Squad	7	31,708	312
Home Lighting & Recycling	7,469	52,303,015	
Home Performance with ENERGY STAR	123	170,832	8,487
Insulation & Air Sealing	132	177,404	12,291
Refrigerator & Freezer Recycling	341	2,984,244	
Residential Heating	360	1,759,810	20,316
School Education Kits	434	4,390,372	29,802
Water Heating	6	50,104	2,116
Residential Program Total	**16,401**	**74,696,974**	**201,366**
Low-Income Program			
Energy Savings Kit	92	996,743	9,113
Multi-Family Weatherization	212	1,845,543	10,344
Non-Profit Energy Efficiency	328	1,479,442	2,816
Single-Family Weatherization	77	1,085,850	16,497
Low-Income Program Total	**709**	**5,407,578**	**38,770**
Indirect Products & Services			
Multifamily Buildings Pilot - EE	5	53,507	183
Indirect Products & Services Total	**5**	**53,507**	**183**
EE PORTFOLIO TOTAL	**35,594**	**193,453,589**	**315,094**
Demand Response Program			n/a
Saver's Switch	8,647	112,122	n/a
DR PORTFOLIO TOTAL	**8,647**	**112,122**	**n/a**
PORTFOLIO TOTAL	**44,241**	**193,565,711**	**315,094**