



## 2016 First Quarter Colorado DSM Roundtable Update

May 12, 2016

Public Service Company of Colorado (“Public Service” or the “Company”) provides the following update regarding product status including energy and demand savings achieved, product expenditures, implementation changes, and measurement and verification (M&V) modifications.

### Product Implementation Status

Please refer to the attached table for the preliminary first quarter 2016 (cumulative Jan. 1 – Mar. 31, 2016) product energy and demand savings achieved, product expenditures, and CO<sub>2</sub> and SO<sub>2</sub> emissions avoided. In total, Demand-Side Management (DSM) electric products have achieved savings of approximately 70.2 GWh and gas savings of 97,219 Dth in the 2016 calendar year. This represents roughly 17% of the 2016 electric DSM plan’s energy savings target of 407.3 GWh and 16% of the gas target of 615,040 Dth.

The following section provides product status activities for the first quarter of 2016 in the Business, Residential, Low-Income, and Demand Response Programs, as well as Indirect Products & Services and other related activities.

### Business Program

- **Commercial Refrigeration Efficiency** – The product is off to a successful start in Q1-2016, realizing 1 GWh of savings. Marketing efforts continue to focus on education of both trade and customers. The product continues to build a robust project pipeline for the remainder of 2016.
- **Compressed Air Efficiency** – The product achieved over 0.5 GWh of electric energy savings within the first quarter of 2016. The completion of custom and prescriptive projects is off to a slow start, but due to a dozen preapproved studies in the quarter, the pipeline is expected to get stronger.
- **Computer Efficiency** – The Computer Efficiency product achieved 7% of the filed goal for the first quarter of 2016. First Quarter was off to a slow start, but we have had several check-ins with the third party implementer and they are forecasting an up-tick in sales for second quarter.
- **Cooling** – The product achieved over 0.87 GWh of energy savings from the midstream product and an additional 0.66 GWh from other products during the first quarter of 2016.
- **Custom Efficiency** – The product achieved 0.1 GWh of electric energy savings and 4,089 Dth of natural gas savings within the first quarter of 2016.
- **Data Center Efficiency** – The product brought in six projects in the first quarter comprised primarily of VFD and cooling equipment. Program management focused on trade engagement with the formation of a formal Data Center Efficiency Trade Advisory Board to focus on program education, prescriptive measure development, increased participation in study program and process improvements.
- **Energy Management Systems (EMS)** – In the first quarter, the product closed 4.8 GWh of electric savings and 1,351 Dth of natural gas savings. The product is half-way to goal largely from the achievements of a multi-premise project and a 2 GWh project. The pipeline of projects is

very strong. Through an RFQ process, eight providers were pre-qualified for their software solutions to choose from the Energy Information Systems (EIS) product.

- **Heating Efficiency** – The product has achieved less than a quarter of its year-end natural gas savings target during the first quarter. The Company will continue the strong customer and trade outreach tactics and incentives through the heating season and message customers that the summer is an ideal time when heating systems can be replaced, upgraded and tuned-up. The Company continues marketing efforts and customer direct outreach on rebate bonuses and trade partner incentives.
- **LED Street Lights** – This product was introduced in the 2015/16 DSM Plan, but the associated LED street lighting rate was not yet available to customers in 2015. January 2016 the LED street lighting rate was approved. A 60-Day Notice was posted in early February updating the operating hours, assumption of energy taken and incremental cost. The 70W replacement fixture was also added, creating a fifth wattage level option. Customers have until the end of 2016 to decide how they would like to participate in the program.
- **Lighting Efficiency** – The product achieved 11% of its year-end savings goal in the first quarter. The program has a robust marketing plan that includes a 30% rebate bonus targeted specifically for healthcare customers, Broncos sponsorship, and targeted customer and trade email campaigns. The program launched enhancements during the first quarter to increase customer's ease of program use and increase participation. These program enhancements will also help reduce the number of custom projects.
- **Lighting – Small Business** – The product achieved 34% of its year-end electric savings goal in the first quarter. The third-party implementer completed 542 new assessments during this period and finished the first quarter with a 30% conversion rate for projects that received a free on-site lighting assessment.
- **Motor & Drive Efficiency** – The product achieved 3.3 GWh, or 34% of its year-end target, at 33% of budget; much of the achievement was from large projects. Participants included a wide-range of businesses, schools, and local governments. The Company will continue its focus on small business customers during Q2. We are forecasting that the product will meet its full-year target.
- **New Construction** – The product achieved over 5 GWh of energy savings and 7,440 Dth in the first quarter of 2016. The Company anticipates achieving both its electric and natural gas savings targets for this product in 2016. Continued success of this product is due to pipeline building in previous years, a stronger economy, and opening the Energy Design Assistance offering to additional qualified energy consultants. The Company continues to work on building a solid pipeline of projects for future years.
- **Process Efficiency** – The product achieved 4.8 GWh and 18% of its full year goal, which was substantially higher than in the first quarter of the last two years. The product continues to receive very positive feedback from large industrial enrollees. However, several of the largest projects have been cancelled or postponed, coinciding with depressed oil and steel prices. We have also had few new participants in the past several quarters. Marketing efforts include outreach events, and increased direct contact with potential customers to encourage new customers to enroll in the product. We are forecasting much higher impacts in June and December, but an overall shortfall to the full year goal.
- **Recommissioning** – The Recommissioning product achieved less than 1% of its electric energy savings goal and 4% of its gas savings goal in Q1 2016. Close dates for the majority of Recommissioning measure implementation opportunities are in Q2 and Q3 2016. Marketing efforts continue to focus on education of both trade partners and customers. With a large number

of recommissioning studies currently in progress, the product continues to build a robust project pipeline for the remainder of 2016 and beyond.

- **Self Direct** – This product had two unique customer participants in the first quarter of 2016 which comprised almost half of the program goal for 2016.

### **Residential Program**

- **Energy Efficiency Showerheads** – The campaign to market this product in 2016 has a projected launch date in early May, thus no achievement has been recorded for the product at this time.
- **Energy Feedback Residential** – A product refill, encompassing approximately 100,000 new participants was implemented beginning in late March. The first home energy report for this group contained a *welcome insert* that served as an introduction to the product and provided additional details on the report components. This refill was a planned event designed to maintain product participation levels and is a direct result of natural product attrition that occurs when participants move or choose to opt-out. Claimable energy savings from this new group won't be measured and reported on until late Q2 or early Q3.
- **ENERGY STAR® New Homes (ESNH)** – The product experienced a busy first quarter with a total of 837 homes completing the requirements and earning a rebate. This is approximately a 100% increase over the same period in 2015 and is due in part to our closing the product early in 2014, which eliminated some homes from carrying over into 2015. It is also the result of an increase in 2016 new home construction starts. The majority of homes earning a rebate thus far are being built in jurisdictions operating under 2009 IECC requirements, which includes the City and County of Denver. 23% of the 837 homes completed were built in 2012 IECC or higher jurisdictions. We expect this percentage to increase and even swing to the majority, once the City and County of Denver and others such as Aurora and Arvada, begin permitting homes under the 2015 IECC this year. One outcome from this trend is a reduction in the product Dth savings claimed on a per home, however, buyers of these homes will inherit a better performing home (over 2009 IECC built homes), saving them money to heat and cool their homes.
- **Evaporative Cooling** – The product achieved 0.1 GWh of electric energy savings in Q1, with 109 units rebated. Marketing efforts are centered on trade partner ramp-up for 2016 cooling busy season, retail/big-box stores and targeted promotions aimed at driving warmer weather product rebates in Q2 and Q3.
- **High Efficiency Air Conditioning** – The product saw another strong start to the year, with a 20% increase in participation over the same time period in 2015. Part of this success may be attributable to the above average temperatures experienced during the last quarter of 2015 and early 2016. Participation is expected to ramp up with cooling and commissioning season approaching.
- **Home Energy Squad** – The product had a stable Q1 achieving more savings and participation this quarter than all of 2015. While still behind on expected participation, the average energy savings per home is higher than anticipated. The product has also received great feedback from participating customers. At the end of Q1, the company launched the first digital advertising campaign for this product and will continue to run promotions throughout the year to ensure the product hits its savings goals.
- **Home Lighting & Recycling** – The Home Lighting & Recycling product kicked-off in January with discounts on CFLs and LEDs. Product advertising and promotion ran in February and March

to boost sales prior to daylight savings time taking effect. Sales tend to be higher during the winter season when lighting is more readily needed. Retailers are beginning to discontinue offering CFLs; however, Public Service will continue to motivate customers to purchase CFLs using discounts as long as the products are still available in the stores. CFLs are the least expensive energy efficient lighting option.

In anticipation of this transition, two 60-Day Notices were implemented, one to add Value LEDs to the portfolio and the other to incorporate recommendations from the 2015 Home Lighting Product Evaluation. When CFLs are phased-out, Public Service will transition to promoting Value and ENERGY STAR certified LEDs.

- **Home Performance with ENERGY STAR® (HPwES)** – The product achieved 0.031 GWh and 28,375 Dth in the first quarter marking 11% and 18% of the filed goal. This is slightly lower than the 2015 Q1 benchmark but the Company is continuing to assess new ways to generate participation to achieve savings goals. In Q2 the company plans to work more closely with participating auditors to help them better promote the program and gain participants.
- **Insulation & Air Sealing** – Although several top trade partners report business is slower for them this year, the program did well in Q1 2016, achieving over 50% of the annual filed electric energy goal and 41% of the filed annual gas goal.
- **Refrigerator & Freezer Recycling** – The product recycled 1,712 units during the first quarter, which equates to 0.63 GWh of electric savings. The Company is planning to participate in the EPA's "Flip Your Fridge" campaign which launches on Earth Day and runs through Memorial Day. The Company is planning additional advertising through print, digital and radio channels to launch during the second quarter.
- **Residential Heating** – Q1 participation is slightly lower than Q1 2015, but the program is still performing above expectations on the electric side. The size of furnaces, and thus the Dth savings, is 13% less than a year ago. Electronically Commutated [fan] Motors (ECM's) continue to dominate the program with 60% of the share of measures, compared to 40% furnace measures. Thirty-seven percent of customers using the Heating rebates are getting both the furnace and ECM rebates (\$220 combined). Bundled radio, television and print advertising is the primary marketing tactic this quarter.
- **School Education Kits** – The Company is currently enrolling classrooms to receive the School Education Kits during the spring semester. The Company expects to enroll at least 50% of the participation target during the first two quarters of the year. In Q1, 14,827 kits were delivered.
- **Water Heating** – The first quarter reached 18% of the filed electric participation goal, achieving just over 46,000 kWh, which is 34,000 kWh more than the product achieved in Q1 2015. The natural gas water heating participants reached 21% of goal, with 1,156 Dth savings. Focusing on enhancing cost-effectiveness, the Company will only allow low to no-cost promotional communications in 2016 for this product.

### **Low-Income Program**

- **Energy Savings Kits** – The campaign to market this product in 2016 has a projected launch date in mid-May after the Low Income Energy Assistance Program (LEAP) seasons ends on April 30, thus no achievement has been recorded for the product at this time.
- **Multifamily Weatherization** – In the first quarter of 2016, Energy Outreach Colorado (EOC) identified gas and electric savings among over 30 low-income multi-family facilities based on

good momentum from the product's 2015 pipeline. Three projects were committed in Q1 with significant natural gas savings.

- **Non-Profit** – In the first quarter of 2016, EOC identified gas and electric savings among 25 low-income non-profit facilities and presented several proposals to build the 2016 pipeline. One non-profit facility project was committed in Q1 with modest electric savings. Some projects that were either not funded in 2015, or were in an earlier stage of development, will likely be completed in 2016.
- **Single-Family Weatherization** – During the first quarter, energy savings were approximately 0.167 GWh and 5,715 Dth. This achievement is 7% and 15% of goal, respectively, which is on track with the product's 2015 Q1 performance benchmarks. The Company will continue to support Energy Outreach Colorado's outreach, which to-date has resulted in the participation of eight different organizations, as they work to grow the program and achieve its savings goals.

### **Indirect Program**

- **Business Education** – In the first quarter of 2016, the Business Education program achieved approximately 24% of the year-end participation target and generated 88 customer leads. Participation and outreach through key community and trade association events continue to create a meaningful conversation with customers. By the end of Q1, the Company provided outreach through five community-based events. In addition, the program has been supported through energy efficiency messaging via the Energy Solutions newsletter, as well as a mass marketing print campaign. The combination of these initiatives continues to support DSM achievements.
- **Business Energy Analysis** – The Company offers three different types of audits: online energy assessments, on-site energy audits, and engineering assistance studies. The Company achieved 4% of its electricity participation goal and 6% of its natural gas participation goal in Q1 2016. Marketing efforts for Q2 include bill insert, social media, radio advertising, direct mail, and e-mail campaigns, as well as a \$59 on-site energy audit promotion until May 6th. Additional efforts continue to focus on education of both trade partners and customers. With a significant number of on-site energy audits currently in progress, the Company continues to build a robust project pipeline for the remainder of 2016 and beyond.
- **Consumer Education** – In the first quarter of 2016, Consumer Education achieved approximately 42% of the year-end participation target and generated 3,063 customer leads. Participation and outreach through key community events continues to create a meaningful opportunity to address energy efficiency with customers. By the end of Q1, the Company provided outreach through 45 community-based events. In addition, the program has been supported through conservation messaging in residential newsletters and web-based channels. The combination of these initiatives continues to drive participation in DSM products.
- **Energy Efficiency Financing** – The Company continues to work with established alliances for outreach, marketing, and education about financing options to remove the up-front capital barrier for upgrading to energy-efficient equipment. Efforts have intensified in finding a territory-wide residential finance partner. Elevations Credit Union's residential energy efficiency (unsecured) loan is still being used by residential customers, although the number of participants is less than originally expected. Efforts are also underway to further encourage loan participation by commercial trade partners and their customers.
- **Home Energy Audit** – After Q1, the product is on target to achieve its participation goals in both gas and electric for 2016. It is likely the program will remain under budget since minimal

advertising and promotions are being implemented keeping costs low while the program remains on track.

- **DSM Planning & Administration** – During the first quarter of 2016, the Company posted seven 60-Day Notices, led efforts to prepare the 2017/2018 Plan for filing, and supported the continued development of the 2016 DSM Potential Study.
- **Program Evaluations** – The Company selected a vendor to complete this year's program evaluations using a competitive Request For Proposal process. This year, the Computer Efficiency and Small Business – Lighting products will receive a comprehensive impact and process evaluations while the Water Heating and Low Income will receive a comprehensive process evaluation. Additionally, the Company plans to complete the 2<sup>nd</sup> year of the 2014 Energy Efficiency Financing evaluation with The Cadmus Group.
- **Measurement & Verification** – The Company's third-party verification contractor, Nexant, completed random field inspections for prescriptive products for the 2016 M&V year, with no significant variances. The resulting data will be utilized for the 2016 DSM Annual Status Report.
- **Market Research** – Xcel Energy utilized a number of membership and subscription services to maximize our ability to reach targeted customer segments and increase Company awareness of best practices. The Company has started work on the 2016 Business Attitudes, Awareness, and Usage studies and the 2016 Home Use Study. Additionally, several new subscription based tools were rolled out such as: E Source's DSM Insights which provides utility portfolio and program level information on spending, savings, cost effectiveness, etc.; E Source's Measure Insights which aggregates technology-specific data from Technical reference manuals, and E Source's JourneyHub which provides a web-based tool to map DSM customer touchpoints and experiences.
- **Product Development** – During the first quarter of 2016, the Company continued to develop new products and measures for 2016 (to be launched via 60-Day Notice) and for the 2017/18 DSM Plan.

The following products were filed via 60-Day Notice in the first quarter of 2016:

- Data Center Design Efficiency
- Indirect Energy Benchmarking Program

The following new products will be included in the 2017/18 DSM Plan:

- C&I Refrigeration – four new measures; commercial dishwashers, conveyor dishwashers, demand controlled ventilation, auto closing doors
  - Mini-split AC - Add ductless mini-split heat pumps to the Cooling Efficiency program and the High Efficiency Air-Conditioning program.
  - LED Linear Ambient measures to replace T12s added to the Lighting Efficiency program
- **Business Energy Feedback Pilot** – Two Business Energy Reports were delivered during the first quarter of 2016 to approximately 10,000 small business customers. E-mails continued to be delivered as a complement to the printed report to an average of 1,664 participants. The Company worked with the third-party implementer to administer a customer satisfaction survey to understand customer opinions about the Business Energy Reports and to uncover why these small business customers are not saving energy compared to customers who don't receive the reports. The survey results indicated that customers like the reports, read and share them with others, and state that they have made changes in how they use energy. However, the first quarter energy savings measurement, which was completed in March 2016, did not show statistically significant electricity or natural gas savings.

- **Multifamily Buildings Pilot** – During the first quarter of 2016, the Company along with the third-party implementer, continued implementation of the pilot. Since the launch of the pilot in September 2015, 23 building assessments have been completed and 477 apartments have received direct installation of energy efficient equipment.
- **Smart Thermostat Pilot – EE** – The Smart Thermostat Pilot enrolled 1,360 new participants in Q1 2016. Total enrollments for the pilot are approximately 4,000 participants, representing 80% of the pilot's participation target. New customer enrollments dropped about 25% from Q4 2015, but this was expected as consumer electronics typically have strong sales during Q4 and the Company increased recruiting efforts during Q4 2015. The enrollment of 1,360 participants despite very little communications during a typically slow sales quarter is encouraging. The Company's online Storefront continues to be pilot participants' preferred method for enrollment, accounting for 69% of participant enrollments.

### **Demand Response Program**

- **Saver's Switch®** – The first quarter of the year is usually a slow time for the Saver's Switch program. Marketing plans have been developed and are being executed. In all, about 500 switches were deployed in the quarter.
- **Smart Thermostat Pilot – DR** – The Company was gearing up for the launch of the DR portion of the Smart Thermostat Pilot at the end of Q1. Customers will sign up for the pilot via online enrollment portals unique to their thermostat's manufacturer. The Company is working with EnergyHub to execute the marketing plan that will include communications from both Xcel Energy and thermostat manufacturers. The DR pilot will recruit from both customers that have received the \$50 EE rebate as well as customers that installed an eligible smart thermostat outside of the pilot. The pilot's goal is to have 1,000 customers enrolled for DR this summer.
- **Small Business Smart Thermostat Pilot** – The Company was also preparing to launch this pilot in late April. While the Company encountered significant challenges during the development of the pilot, the focus is now working with the selected thermostat partner to finalize the online tools to deliver this pilot as designed and to optimize customers' experience. The Company will be recruiting participants to achieve the pilot's goal of 100 enrolled customers for summer 2016 program-wide DR events.
- **Building Optimization DR Pilot** – The Company and the third-party implementer continued activities to recruit customers to the pilot, install the software, and start base-lining (a.k.a. learning mode) the HVAC usage in the customers' buildings. As of first quarter 2016, the pilot is at 69% subscribed with 6 customers (15 buildings) signed up, and two buildings in optimization mode.