



2015 Fourth Quarter Colorado DSM Roundtable Update

February 15, 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 fourth quarter 2015 (cumulative Jan. 1 – Dec. 31, 2015) product energy and demand savings achieved, product expenditures, and CO₂ and SO₂ emissions avoided. In total, Demand-Side Management (DSM) electric products have achieved savings of 407.8 GWh and gas savings of 597,748 Dth in the 2015 calendar year. This represents roughly 100% of the 2015 electric DSM plan’s energy savings target of 406.9 GWh and 102% of the gas target of 586,825 Dth.

The 2015 Commission-approved goal for the Company’s DSM products is blended for the calendar year given that the 2014 DSM Plan continued into 2015 through July 31. The 2014-2015 blend resulted in an electric savings goal of 390.7 GWh and natural gas savings goal of 608,244 Dth. The Company achieved approximately 104% of the blended electric goal, and 98% of the blended gas goal in 2015.

The following section provides product status activities for the fourth quarter of 2015 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 closed Q4 at approximately 48% of its electric savings target and 57% of its natural gas savings target. In Q4 the Company extended the 20% bonus on all prescriptive and custom projects until November 30, 2015 to increase program participation and to incentivize customers to close projects before the end of the year. Several marketing tactics were also employed in Q4 to target market segments in a continued effort to educate both trade partners and customers about the program.
- **Compressed Air Efficiency** – The product achieved over 0.9 GWh of electric energy savings within the fourth quarter of 2015. The strong pipeline of projects factored into the product’s overall achievement for the year, 3.9 GWh of electric energy savings, exceeding targets.
- **Computer Efficiency** – The Computer Efficiency product achieved approximately 46% of its energy savings target during 2015. The Company is working with the third-party implementer to promote the sales of high-efficient personal computers within the upstream component of the product. The Company added a new measure to the upstream offering—high efficiency (HE) power supplies for servers—during late 2015.
- **Cooling** – The product added over 1.82 GWh of energy savings during the fourth quarter of 2015, of which 0.65 GWh were due to midstream cooling, resulting in the product reaching 116% of its year-end energy savings target.
- **Custom Efficiency** – The product achieved 0.36 GWh of electric energy savings and 4,389 Dth of natural gas savings within the fourth quarter of 2015, leading to year-end electric energy savings close to target.

- **Data Center Efficiency** – The product exceeded the year-end electric energy savings target in 2015, capturing 167% of anticipated savings, with 6.7 GWh completed in Q4. Projects with centrifugal chillers, cooling plate and frames, and EC plug fans accounted for a majority of the implementation savings during the last quarter.
- **Energy Management Systems (EMS)** – In the fourth quarter, the product closed over 2.6 GWh of electric savings and 1,202 Dth of natural gas savings. The product achieved over 7 GWh in 2015, falling short of the year-end target due to customers pushing some higher savings projects back to 2016. Two Energy Information System (EIS) projects launched during Q4; and an information sheet was created to communicate the process and benefits of the EIS product to potential participants.
- **Heating Efficiency** – The product achieved almost half of its year-end natural gas savings target during the fourth quarter alone, due to the implementation of customer and trade outreach tactics and incentives at the timely start of the heating season. The Company increased marketing efforts and customer direct outreach about winterization opportunities and saw a higher participation rate through new rebate bonuses and trade partner incentives, as well as high volume attendance at training events.
- **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.
- **Lighting Efficiency** – The product achieved approximately 80% of its electric savings target in 2016. On September 15, the Company extended the 20% rebate bonus to November 30 to bring in additional projects and savings. The Business LED Instant Rebate approach has delivered 6.2 GWh of energy savings, by rebating 123,013 lamps. The Company also launched new rebate measures in December for LED bay and tube lighting.
- **Lighting – Small Business** – The product closed in Q4 at approximately 104% of its electric energy savings target and only 18% of its natural gas savings target. In Q4 the Company extended the 20% bonus on all prescriptive and custom projects until November 30, 2015 to further incentivize lighting retrofits and increase program participation. The Direct Install component of the product was launched in the fall to offer customers with an annual peak demand of less than 100 kW free installation of select energy saving measures including select screw-in LED lamps and aerators in public restrooms and kitchen sinks. At the end of Q4 there were 241 Direct Install participants.
- **Motor & Drive Efficiency** – The 2.7 GWh of savings within the fourth quarter brought year-end achievements to approximately 125% of target. Product expenses came in very close to the forecasted budget. The quarter's achievement included strong performance from first-time participants attending a Pump Systems Optimization training course offered by the Company.
- **New Construction** – The product achieved over 47 GWh of energy savings, exceeding the electric energy savings target for 2015. New Construction continues its success 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** – Although the product achieved over 10 GWh in Q4, it still fell short of its year-end target. This shortfall was due to customers cancelling projects or delaying the final commissioning of their projects until 2016. The Company will continue efforts to influence customers to complete projects, while focusing on new opportunities within the mid-sized customer group.

- **Recommissioning** – The Recommissioning product achieved its year-end electric energy savings target and was close to the natural gas savings target, at approximately 92%. 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 2016 and beyond.
- **Segment Efficiency** – The product was closed with the launch of the 2015/16 DSM Plan.
- **Self Direct** – The product did not rebate any projects in Q4 and fell short of its 2015 year-end electric energy savings target. Several large projects that were expected to be completed in 2015 were postponed by customers.

Residential Program

- **Energy Efficiency Showerheads** – The product had a successful spring campaign where a total of 7,791 showerhead and aerator kits were shipped to eligible customers. With the approval of the 2015/16 DSM Plan, an additional 34,250 kits were shipped to new and past participants. New participants were able to select a one- or two-bathroom showerhead kit, allowing them to choose the appropriate solution for their home. Past participants were offered an additional showerhead as well as aerators, assuming they installed the showerhead they received from Xcel Energy in the past. The past participant kit orders exceeded expectations, proving to be an attractive offering to our customers.
- **Energy Feedback Residential** – The product experienced a very good year, significantly exceeding both energy (kWh) and dekatherm (Dth) savings targets. Demand reduction (kW) underperformed, however, because results showed that demand reduction was unequal across participant groups, which was not expected. Product participation was approximately 440,000 at year end. At the end of the year, the third-party implementer, along with the third-party evaluator, were able to confirm statistically significant savings results from the My Energy online feedback tool. My Energy savings were calculated using a Propensity Score Matching method which compares customers who have logged-in to My Energy to a similar matched group of customers who have not.
- **ENERGY STAR® New Homes (ESNH)** – The Company was successfully able to manage natural gas expenditures across the portfolio to keep ESNH open throughout the calendar year. More than 3,900 homes completed the product requirements for participating builders to earn rebates in excess of \$2 million during 2015. Home Energy Rating System (HERS) Index scores for participating homes continue to drop year over year (lower is better) and in 2015, the average participating home's HERS Index was 57, compared to 59 in 2014. Year-end energy savings (kWh) and demand reduction (kW) targets were exceeded significantly due to the 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 and increased adoption by local jurisdictions of higher efficiency energy codes that impacted baseline assumptions.

Several professional sales training events ("Selling High Performance Homes") were completed in Q4, including a successful presentation in Summit County on October 28. Thirty-three sales professional attended the event. Other sessions were completed with Village Homes in Loveland Summit County Home Builders Association in Frisco and three with DR Horton in Parker, Erie and Fort Collins.

- **Evaporative Cooling** – The product fell short of both its 2015 electric energy savings target, and thus remained under budget. Evaporative cooling equipment sellers and trade allies have

reported significantly lower unit sales generally. Although the Company had raised rebate levels in all five product tiers effective June 1, 2015, rebate volumes still fell short of forecasts. Key trade partners reported that some customers were delaying using their evaporative coolers until the mid-summer, and many customers postponed replacing their evaporative cooling system due to less cooling need in 2015. The Company is considering higher levels of trade incentives and engagement in 2016.

- **High Efficiency Air Conditioning** – The product ended 2015 at 26% over the energy savings target. Relationships with participating contractors remain strong, with 156 contractors participating during the year. The product did exceed the forecasted budget to accommodate additional customer rebates and trade partner incentives, which supported additional energy savings.
- **Home Energy Squad** – This product finished out the year short of its year-end savings targets for both natural gas and electric, in part due to a late launch mid-year, upon Plan approval. At the end of Q4 the Company launched a promotion generating over 100 new customer sign-ups. The product has since continued to see increased participation through the beginning of 2016.
- **Home Lighting & Recycling** – Fourth quarter is the season for lighting. Sales were robust with a myriad of retailers offering discounts on energy-efficient bulbs. Xcel Energy drove customers to stores with advertising and promotions, and used strong incentives to entice customers to purchase bulbs. Several local events were implemented including sponsorship of the Denver Zoo, Thornton WinterFest, and Denver Parade of Lights. The product surpassed its estimated Q4 sales and year-end electric energy savings target.
- **Home Performance with ENERGY STAR® (HPwES)** – The product finished out the fourth quarter underachieving in participation and energy savings targets. Part of the challenge can likely be attributed to an increase in rebates under the Insulation & Air Sealing product (under the 2015/16 DSM Plan), which made the HPwES product less appealing to homeowners. Additionally, participation in other measures such as high efficiency furnaces and thermostats were lower than forecasted. The Company will consider a bonus, or additional marketing measures, to increase participation in 2016.
- **Insulation & Air Sealing** – Customers responded favorably to higher rebate levels in Q4, with 20% higher customer participation compared to 2014. Overall the product met its electric and natural gas energy savings targets for the year.
- **Refrigerator & Freezer Recycling** – The product exceeded its year-end energy savings target and recycled 7,450 units. Continued marketing efforts throughout the year contributed to the success of the product.
- **Residential Heating** – The furnace bonus rebate (\$120) offered from September 1 – December 15 produced very good results in Q4, with 152% higher Q4 furnace rebates given than the previous year, with strong year-end natural gas savings results. Promotional tactics included mobile app advertising, a “Heating Rebate Rally” sweepstakes, customer educational promotion, bundled radio advertising, bill inserts, and trade partner engagement. ECM (Electronically Commutated [fan] Motor) rebates continued to exceed forecasts, with 70% of all Q4 rebates including an ECM.
- **School Education Kits** – The product exceeded its 2015 electric and natural gas savings targets through distribution of 39,133 kits. The product achieved approximately 107% of its electric energy savings target and 100% of the natural gas savings target. Communications emphasizing the importance of installing the provided measures were sent throughout the year to teachers to share with their students and parents. The product was largely on budget over all.

- **Water Heating** – At the end of Q4, the product exceeded its natural gas savings target for 2016, even though participation was slightly below forecast. Electric impacts fell below expectations for participation and energy savings, but also remained under budget.

Low-Income Program

- **Energy Savings Kits** – The product met both the electric and natural gas savings targets for 2015. Kits were distributed to 5,888 electric customers and 8,113 natural gas customers. The majority of those customers were combo customers (electric and natural gas service provided). A first-ever email offer was sent to income-qualified customers during Q4 and was well received with a seven percent response rate. An additional direct mail offer was sent to income-qualified customers that do not have an email address on record. The product was able to exceed savings targets while remaining under budget for both electric and natural gas.
- **Multifamily Weatherization** – In 2015 the product's third-party implementer, Energy Outreach Colorado (EOC), worked closely with the Company to deliver impacts exceeding 2014 levels. Higher savings measures, such as boilers for space heating and distributed hot water, and insulation and windows in large multifamily buildings, supported these achievements. Although the product's energy savings were concentrated in the City and County of Denver in 2015, EOC also drove participation by multifamily facilities in Aurora, Broomfield, Lakewood, Thornton, Westminster and other cities outside of the Front Range.
- **Non-Profit** – In 2015, the product's third-party implementer, EOC, worked closely with the Company to deliver impacts exceeding the 2015 year-end electric and natural gas savings targets. Rebate expenditures, particularly electric rebates, were over budget due to a mix of higher-expense measures such as HVAC replacement, roofing, and appliances. 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 energy savings.
- **Single-Family Weatherization** – EOC partners with State-funded weatherization agencies throughout the Xcel Energy service territory to identify eligible customers and to ensure that new equipment meets energy efficiency standards to qualify for an incentive. During the fourth quarter, EOC made extra efforts to identify and treat electrically-heated homes to boost the product's electric savings. EOC also conducted outreach on refrigerators which contributed greatly to the electric savings at the end of year.

Indirect Program

- **Business Education** – In the fourth quarter of 2015, the Business Education program achieved approximately 130% of the year-end participation target and generated 362 customer leads. Participation and outreach through key community and trade association events continue to create a meaningful conversation with customers. By the end of Q4, the Company provided outreach through 26 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 through the Business Energy Analysis service: online energy assessments, onsite energy audits, and engineering assistance studies. The Company reached only approximately 49% of the participation target for 2015, but the program did identify nearly 11 GWh of energy conservation opportunities (ECOs) in 2015. Marketing efforts included multiple direct mail and e-mail

campaigns, as well as a promotional onsite energy audit price of only \$100. Additional efforts continue to focus on education of both trade partners and customers. With a significant number of energy audits currently in progress, the Company continues to build a robust project pipeline for 2016 and beyond.

- **Consumer Education** – In 2015, Consumer Education achieved approximately 120% of the year-end participation target and generated 8,383 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 Q4, the Company provided outreach through 158 community-based events.
- **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. A formal alliance is being finalized with the Colorado Enterprise Fund, a non-profit lending source for small businesses that are unable to obtain traditional financing. The Company is also closely monitoring the newly launched Colorado Property Assessed Clean Energy (CoPACE) program to determine how we can offer PACE financing through our commercial financing program. Efforts continue to find a territory-wide residential finance partner.
- **Home Energy Audit** – The product over-achieved its participation target for natural gas and under-achieved (80%) of the electric participation target, while coming in under budget for both fuel types. The Company will continue to advertise and implement customer promotions, and participate in cross-promotions with other products to maintain momentum in 2016.
- **DSM Planning & Administration** – During the fourth quarter of 2015, the Company posted eight 60-Day Notices, led efforts to implement numerous Settlement Agreement compliance commitments, and supported kick-off and planning for the 2016 DSM Potential Study.
- **Program Evaluations** – The Company's third-party evaluator completed process and impact evaluations of the Home Lighting & Recycling product and Lighting Efficiency product in the fourth quarter. Final reports will be publicly available on the Company's Colorado DSM Website.
- **Measurement & Verification** – The Company's third-party verification contractor, Nexant, completed random field inspections for prescriptive products for the 2015 M&V year, with no significant variances. The resulting data will be utilized for the 2015 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. Of note, ad tracking research helped ensure effective energy efficiency messages were reaching customers. Additionally, the Company completed the 2015 Residential Attitudes, Awareness, and Usage (AAU) study this winter which focused on DSM program AAU with both participating and non-participating customers. This year, participants from the Saver's Switch, Single-Family Weatherization, Refrigeration Recycling, and Water Heating products were specifically targeted and asked program specific questions around satisfaction and decision-making. In addition, the Company conducted a Colorado Lighting Market Study to assess lighting opportunities in Colorado, and to help understand the availability and extent of remaining stock of inefficient bulbs.
- **Product Development** – During the fourth quarter of 2015, 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 ENERGY STAR Retail Products Platform (ESRPP) was filed via a 60-Day Notice during Q4. A 60-Day Notice to add a Whole-Facility New Construction measure to Data Center Efficiency is anticipated in the first quarter of 2016.

The following measures were developed through PD Express and filed via 60-Day Notice in the fourth quarter of 2015:

- Bay lighting
- LED linear tubes
- LED bulbs added to Energy Savings Kit and Single-Family Weatherization
- Commercial Refrigeration “Close the Case”

The following products are being vetted for potential inclusion in the 2017/18 DSM Plan:

- C&I Refrigeration – five new measures; commercial dishwashers, conveyor dishwashers, hot food holding cabinet, 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.
 - Advance roof top unit (RTU) controllers - controls save energy by installing a VFD that is then operated using advanced economizer and demand controlled ventilation controls.
- **Energy Feedback Pilot** – During Q3-2015 the pilot was transitioned to a residential product (see above).
 - **Business Energy Feedback Pilot** – One Business Energy Report was delivered during the fourth quarter of 2015 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 year-end energy savings measurement was completed in January 2016 and did not show statistically significant electricity or natural gas savings for 2015. The Company is working with the third-party implementer to administer a customer satisfaction survey in Q1-2016 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.
 - **Multifamily Building Pilot** – During the fourth quarter of 2015, the Company along with the third-party implementer, continued efforts to fully implement the pilot. Ten on-site energy assessments were completed and 148 apartment units received installation of energy-efficient equipment (CFLs, LEDs, faucet aerators, and low-flow showerheads).
 - **Smart Thermostat Pilot – EE** – The Company saw 2,622 participants in 2015, just over 50% of the pilot's year-end participation target. Customer enrollments stayed strong in Q4 due to continued engagement through an email campaign, as well as historically strong sales of thermostats during Q4. The Company's online storefront continued to be pilot participants' preferred method for enrollment, accounting for 76% of participant enrollments.

Demand Response Program

- **Saver's Switch®** – In 2015, approximately 9,200 switches were deployed at just under 9,000 residential customer premises. Throughout the year, the company experienced a challenging marketing environment with high customer acquisition costs and a steep portion of customer sign-ups not materializing into installations due to customers changing their minds, having ineligible equipment, etc.
- **Smart Thermostat Pilot – DR** – The Company has continued to work with EnergyHub to implement and launch the software platform; testing continues for the platform and devices. The Company is still working on plans for recruiting participants for summer 2016, when DR events would be called.
- **Small Business Smart Thermostat Pilot** – The Company encountered numerous issues during contractual negotiations for a thermostat vendor and was not able to finalize a contract to provide the necessary services and devices for this pilot; the Company expects to have that agreement

executed by mid-Q1 2016. The Company expects to begin recruiting participants in late Q1 2016 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. The pilot is at 64% of its subscription target with 4 customers (14 buildings) signed up, and software installed and in learning mode at two buildings.