



## 2017 First Quarter Colorado DSM Roundtable Update

May 16, 2017

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 2017 (cumulative Jan. 1 – Mar. 31, 2017) 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 107.3 GWh and gas savings of 88,110 Dth in the 2017 calendar year. This represents roughly 25% of the 2017 electric DSM plan’s energy savings target of 421.6 GWh and 14% of the gas target of 636,078 Dth.

The following section provides product status activities for the first quarter of 2017 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 Commercial Refrigeration product is on track to hit its electric energy savings target for 2017. However, the program is slightly underachieving its natural gas savings target. The shortfall of natural gas savings and optimism in staying on track for electric goals is due to the addition of demand control kitchen ventilation measures (“DCKV”) in the 2017/2018 DSM Plan. These measures are now available in Salesforce, making it possible for both gas and electric measures to be accounted for. Marketing efforts focused on both the existing and new measures will also help to push the program towards meeting its goals.
- **Compressed Air Efficiency** – The Compressed Air product is on track to meet its 2017 electric energy savings target. This is due to both large projects from the 2016 pipeline as well as the team building a robust pipeline for 2017.
- **Computer Efficiency** – The Computer Efficiency product is on track to achieve its energy savings target for 2017. The program continues to promote the benefits of Virtual Desktop Infrastructure and Personal Computer Power Management to customers and maintains strong relationships with ECOVA to work with manufacturers for implementation for the upstream program.
- **Cooling** – The product is on track to meet the year end target. Midstream products are continuing to see strong growth, particularly with water source heat pumps and air cooled chillers. The midstream product received the Department of Energy’s Advanced Rooftop Campaign award for the most high efficiency rooftop units installed by an efficiency program. The award was presented April 19<sup>th</sup> at the Professional Retail Store Maintenance Association conference in Dallas.
- **Custom Efficiency** – The product is on track to meet the year end target for electric and gas savings.

- **Data Center Efficiency** – The product had a strong start to the year during the first quarter and looks to be on track for a successful year. The product continues to see strong participation in the prescriptive rebate offering for plug fans with electronically commutated motors.
- **Energy Management Systems (“EMS”)** – The EMS product is on pace to meet its full year electric savings target, and we are forecasting natural gas savings of 120% of its full year target. Within the quarter, the product executed MOUs with 12 new customers for its Energy Information Systems (“EIS”) component. We expect that EIS’s costs for studies and third party Strategic Energy Manager (“SEM”) fees will push full-year expenditures to approximately 140% of budget. However, we believe that investment will yield substantial results in the next year.
- **Heating Efficiency** – The product has momentum to have another strong year and is on track to meet the filed targets. Marketing efforts will include direct mail, email, and digital marketing. The introduction of unit heaters in the first quarter will build pipeline for the remainder of the year, and will continue into 2018.
- **LED Street Lights** – The LED Street Lights product had a strong pipeline moving into the year.
- **Lighting Efficiency** – The product is starting the first quarter of 2017 with 31% of it’s targeted kilowatt hours achieved and on target to reach the year end savings. Several new rebate offerings became available March 1 which continues to grow the LED savings opportunities.
- **Lighting – Small Business** – The product is on track to exceed its year end electric savings target. The third party implementer also finished the first quarter with 128 new assessments completed.
- **Motor & Drive Efficiency** – The product is on track to meet its energy savings target and has the momentum to meet its target for end of year. Marketing efforts across the portfolio as a whole as well as second quarter completed projects for the Motors and Drives product will determine whether or not a marketing campaign will be run for this specific product.
- **Multifamily Buildings**– The product transitioned from pilot to product during the first quarter of 2017 with a steady pipeline built up during the pilot. In March, the product officially kicked off, and completed one assessment. Several other assessments were scheduled during the first month and direct installation efforts began the first day of the second quarter. In the second quarter the Company will focus on customers in the pipeline who have been waiting on the program transition as well as promoting the program through trade allies and various other channels.
- **New Construction** – The product is currently not on track to meet its electric or gas savings targets. However, the Company is developing the Energy Efficient Buildings pipeline in order to close the forecasted energy savings achievement gap.
- **Process Efficiency** – Within the first quarter, three studies were completed and agreements were reached with five new participants. Product management is actively cross-selling the combination of Process Efficiency and EIS, and two customers have signed multi-year agreements for that combined “strategic energy management” approach. Most of the new participants’ achievements will be in the next year, but product management is working with customers to accelerate projects into 2017. Product management has also re-negotiated third party contracts achieving cost reductions, which will partially offset the investments for new customer acquisition, EIS studies, and third party SEM expenses.
- **Recommissioning** – The product had a slow start in the first quarter and will likely end the year short of the electric and natural gas savings targets. Several studies were completed at the end of 2016 and in the first quarter of 2017. We will continue to emphasize the importance of

implementing the recommended measures identified in the study. The study pipeline remains strong. A Small Building Tune-Up promotion will be launched during the second quarter to encourage participation in the offering.

- **Self-Direct** – After the first quarter, the product looks to be just behind year end savings targets. Projects continue to move through the pipeline and additional savings are expected to be achieved later in 2017.

## **Residential Program**

- **Energy Efficiency Showerheads** – The product's improved online ordering system is in development with the program's vendor with an expected launch date in early June. Customers will be able to request the traditional, free showerhead offer or purchase an upgraded kit for a handheld or spa style showerhead. Savings are typically reported in third or fourth quarters.
- **Energy Feedback Residential** – The “rolling” product enrollment process began in March and is expected to improve overall product savings and level out the number of calls received by the Company's call center. In the past, the enrollment process was implemented annually, and it was based on the level of attrition incurred in the previous year. Attrition occurs when participants either move or choose to opt-out of the product. Due to the large number of new participants added with the annual enrollment process, it typically generates an increase in customer calls made to the call center. The rolling enrollment process involves looking at monthly attrition and initiates new enrollments designed to match that attrition. Since new participants are brought into the product sooner than what would occur in the annual process, overall product savings is improved.
- **ENERGY STAR® New Homes (“ESNH”)** – Product participation was 993 homes and at the current levels, we are forecasting to exceed our year end participation target. 21% of the qualifying homes were built in jurisdictions that have adopted 2012 IECC or 2015 IECC. Rebate levels for 2012 IECC or higher homes increased significantly starting March 1, however, no homes to date have yet qualified for either of the highest two rebate tiers. With the increased interest in zero energy ready homes (“ZERH”), builder and homebuyer marketing materials were updated to include a ZERH conversion.
- **Evaporative Cooling** – The product out-paced participation, electric demand reduction and energy savings compared to the same period in 2016. Marketing planning efforts will continue to be focused on targeted direct mail, email, trade communications and Web content/tools in 2017. In an effort to meet the higher participation targets agreed to in settlement, the Company increased vendor incentives, effective March 1, to drive more trade partner and retailer participation in 2017.
- **High Efficiency Air Conditioning** – First quarter results were better than expected, due in part to many warm winter days in which trade allies could commission AC systems sold in colder weather. The new ductless Mini-Split Heat Pump (MSHP) rebate offering launched on March 1<sup>st</sup>; higher and lower SEER/EER units will be tracked and analyzed as usage builds.
- **Home Energy Squad** – The product had a slower start in first quarter than was initially expected but was ahead of its 2016 first quarter achievement with 186 visits completed. Several marketing tactics and promotions were implemented to help refill the pipeline. The Company plans to incorporate advertising into the marketing mix starting early in the second quarter and will continue to look for opportunities to partner with and present to communities to keep participation consistent.

- **Home Lighting & Recycling** – The Home Lighting & Recycling product kicked-off in January with discounts on Energy Star LEDs. New product advertising was launched in February and included TV, radio and signage. Advertising is used to boost sales prior to daylight savings time taking effect as sales tend to be higher during the winter season when lighting is more readily needed. The product is on track to exceed 2017 targets.
- **Home Performance with ENERGY STAR® (“HPwES”)** – At the end of the first quarter, the HPwES product was benchmarking well ahead of its 2016 first quarter achievement for electric savings, gas savings and participation. This increase is likely due to the gas bonus rebate offered during the first quarter which allowed for early realignment with the standalone Insulation program in terms of air-sealing requirements. The Company plans to look at grassroots marketing efforts as well as partnerships with community programs to keep pushing the program toward its 2017 savings targets.
- **Insulation & Air Sealing** – The product saw a successful first quarter achieving almost half of its natural gas savings target. This is likely attributed to the first quarter gas bonus incentive on the attic and wall insulation measures. The Company has planned low-cost marketing tactics as well as bundled outreach with HVAC products for the insulation product throughout the year. The insulation program is also going through an evaluation in 2017 which kicked off at the end of the first quarter.
- **Refrigerator & Freezer Recycling** – The program is off to a good start for 2017, although the pace of appliance collections is slightly below target. A multi-channel marketing plan is currently ramping up with bill inserts, direct mail, social media, and radio advertising scheduled for the coming months to increase awareness and drive participation.
- **Residential Heating** – Achievement in gas and electric participation and savings was very strong in the first quarter. A bonus rebate was offered for qualifying furnaces and for electronically commutated motors, which helped drive customer participation.
- **School Education Kits** – 13,788 kits were shipped in the first quarter of 2017 with additional shipments going out in April. The program is on pace to meet its spring targets, shipping half of the planned 38,500 total kits in the spring school semester with the remaining kits to be shipped for the fall semester.
- **Water Heating** – The product is on track to meet energy savings targets and exceed natural gas savings targets. The electric product is seeing more participation than in the first quarter of 2016, resulting in approximately 18,700 kWh more than this time last year. The Company continues to focus on improving cost-effectiveness, only allowing no-cost communications in 2017 for this product.

#### **Low-Income Program**

- **Energy Savings Kits** – The campaign to market this product in 2017 will launch mid-May after the Low-Income Energy Assistance Program (“LEAP”) season ends on April 30<sup>th</sup>. Direct mail and email campaigns will be utilized to reach eligible customers through multiple channels.
- **Multifamily Weatherization** – In the first quarter of 2017, Energy Outreach Colorado (“EOC”) identified natural gas and electric savings among 16 low-income multifamily facilities. Although no projects were committed, a significant pipeline of electric and natural gas savings was proposed by EOC, pre-approved by the Company’s Energy Efficiency Engineering group and is expected to be completed by year’s end.
- **Non-Profit** – In the first quarter of 2017, EOC identified gas and electric savings among 32 low-income non-profit facilities. Although no projects were committed, EOC presented several more

proposals to build the 2017 pipeline, and the product expects to meet its electric and natural gas savings goals for full-year 2017.

- **Single-Family Weatherization (“SFWx”)** – The product saw a successful first quarter achieving almost half of its natural gas savings target. This is likely attributed to the first quarter gas bonus on the attic and wall insulation measures. The Company has planned low-cost marketing tactics as well as bundled outreach with HVAC products for the insulation product throughout the year. The insulation program is also going through an evaluation in 2017 which kicked off at the end of the first quarter.

### **Indirect Program**

- **Business Education** – In the first quarter of 2017, the Business Education program achieved approximately 16% of the year end participation target and generated 73 customer leads. Participation and outreach through key community and trade association events continue to create a meaningful conversation with customers. By the end of the first quarter, the Company provided outreach through six 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. Marketing efforts in 2017 may include social media, direct mail, and e-mail campaigns, as well as an on-site energy audit promotion if needed. Additional efforts continue to focus on education of both trade partners and customers. The Company continues to build a robust project pipeline for 2017 and beyond. Earth Day promotion has brought in over 60 on-site audits in the month of April, and continued interest in receiving the ENERGY STAR rating for Denver County benchmarking requirement. The program is on track to meet participation goals for 2017.
- **Consumer Education** – In the first quarter of 2017, Consumer Education achieved approximately 15% of the year-end participation target and generated 347 customer leads and 63 program signups. Participation and outreach through key community events continues to create a meaningful opportunity to address energy efficiency with customers. By the end of first quarter, the Company provided outreach through 12 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 has launched a territory-wide residential finance offering through a partnership with LendKey and is in the process of introducing the offering to the trade partner network. Elevations Credit Union’s residential energy efficiency (unsecured) loan continues to be used by residential customers in Denver and Boulder counties. On the commercial side, Xcel Energy and HBC presented six webinars for commercial trade partners highlighting the new on-line financing portal used to request proposals from the various lenders participating in the program. Just under 100 commercial trade partners attended the webinars with additional webinars planned for the third quarter of 2017.
- **Home Energy Audit** - The Home Energy Audit program is on track to achieve its gas participation targets and is ahead of where it was at the end of the first quarter of 2016 with 1,038 gas/combo audits. The electric participation fell slightly short of 2016 benchmarks after the first quarter; however, the Company is looking at bundled campaigns and other inexpensive marketing tactics to push the electric participation.

- **DSM Planning & Administration** – During the first quarter of 2017, the Company has focused primarily on developing its Strategic Issues case and meeting compliance requirements from the 2017/2018 DSM Plan settlement.
- **Program Evaluations** – 2016 evaluation reports were posted to the website and 60-day notices filed to make adjustments in alignment with the evaluation recommendations at the end of the quarter. 2017 evaluations got underway in the first quarter with kick-off meetings in Denver the week of March 20th.
- **Measurement & Verification** – The Company's third-party verification contractor, Nexant, completed random field inspections for prescriptive products for the 2017 M&V year, with no significant variances. The resulting data will be utilized for the 2017 DSM Annual Status Report.
- **Market Research** – The Company is working to develop data analytics dashboards from DSM Business Program participation data. These dashboards will be used to assess the potential for targeted marketing campaigns to business customers in order to increase program awareness and participation.
- **Product Development** – Current development efforts include:
  - Partnering with the Department of Energy and Lawrence Berkeley National Laboratory on a research project to study Integrated Building Management Systems. The project tests how networked lighting controls, daylight redirecting window film, deep daylight dimming, and HVAC controls can be managed together to save energy.
  - Offer a prescriptive rebate for advanced lighting controls for retrofits or new construction in small and medium offices with more than 10 Troffers, and warehouse/storage facilities with high-volume, predictable application. LED networked and integrated wireless luminaires layer daylight harvesting, occupancy sensing, and high end trimming control strategies with out-of-the box functionality and no need for additional manufacturer support or a special server. A one-time one-button commissioning is used to set light fixtures.
  - Net zero new construction explores what additional assistance beyond Energy Design Assistance is required for customers interested in using multiple technologies to minimize net energy consumption.
  - Advanced Energy Communities are district-scale development projects that have aggressive energy goals and include multiple energy systems (EE, DR, advanced grid, renewable energy, storage, and electric vehicles.) The Company is looking into program designs that can help meet the needs of these projects.
  - Advanced roof top unit controllers that operate a VFD using advanced economizer and demand controlled ventilation.
  - Offer a rebate to residential customers when they purchase an ENERGY STAR certified dehumidifier. ENERGY STAR models use 15-30% less energy than non- ENERGY STAR.
  - Offer a rebate via upstream program leveraging current partners for variable refrigerant flow heat pump systems that can deliver up to 40% energy savings above minimum codes.
  - Continue to evaluate the following Stage 1 prioritized opportunities: heat pump clothes dryers, permanent magnet motors with integrated variable frequency drive, window treatments and windows, ozone laundry, small embedded data centers, and fault detection software

**ENERGY STAR® Retail Products Platform Pilot (ESRPP)** – Retailers earned \$93,375 in rebates during the first quarter of 2017. Overall engagement and program support by retailers continued to be strong. Participation agreements were renewed for all three retailers for 2017. Nationwide Marketing Group

was also on-boarded as a retail partner starting in April 2017. Clothes washers and refrigerators were added to the list of qualified products as well as implementing a “basic” and “advanced” tier for all product categories.

### **Demand Response Program**

- **Saver’s Switch®** – The Saver’s Switch program normally has a fairly quiet first quarter installation-wise. In all, the Company has deployed just under 300 Saver’s Switches. With the arrival of spring installations are starting in earnest. In total, the Company had received about 4,500 installation requests at the end of the quarter.
- **Building Optimization DR Pilot** – The Company and the third-party implementer continued activities to install the software platform in the customers’ buildings. Two buildings were removed from the pilot due to tenant concerns. Progress continued on all remaining buildings with all expected to be in full optimization mode by or before the end of second quarter. Summer demand response testing will begin in June.