



2019 Fourth Quarter Colorado DSM Roundtable Update

February 12, 2020

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 2019 (cumulative Jan. 1 – Dec 31, 2019) 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 approximately 503 GWh and gas savings of 652,764 Dth in the 2019 calendar year. This represents approximately 100% of the 2019 electric DSM plan’s energy savings target of 502 GWh and 102% of the gas target of 637,269 Dth.

The following section provides product status activities for the fourth quarter of 2019 in the Business, Residential, Low-Income, and Demand Response Products, as well as Indirect Products & Services and other related activities.

Business Program

- **Commercial Refrigeration Efficiency** — The product exceeded its year-end electric savings target but did not meet the gas savings target. Participation was highest with No Heat Case Doors, Medium Temperature Reach-In Cases, and Anti-Sweat Heater Low Temp measures. Direct Installation participation was down in 2019 compared to previous years due to the focus on the commercial grocery segment and will be a focus for 2020. The Company filed a 60-day notice in the fourth quarter to update the Medium-temp Enclosed Reach-In Case measure to improve the cost-effectiveness of the product.
- **Compressed Air Efficiency** — The product did not meet its 2019 electric savings targets. This is due to a continued lull in the pipeline. Planned upcoming efforts include maintaining and growing relationships with key trade partners, increasing product awareness through email campaigns, and exploring new tactics to bolster the future pipeline. The opportunity for smaller (under 50 HP) compressed air studies will be introduced in the first quarter of 2020.
- **Cooling** — The product did not meet its 2019 electric savings. The product did not close any large custom cooling projects, which typically make up half of the forecasted achievement, in 2019. Plans are in place to increase custom cooling opportunities with a potential trade incentive. Midstream distributors are still behind on submitting applications. The Company filed a 60-day notice in the fourth quarter to update incremental cost assumptions for both prescriptive and midstream measures. A 60-day notice is planned in the first quarter of 2020 to update and expand the building types and equivalent full load hours. This will better represent the building inventory in the service territory.
- **Custom Efficiency** — The product met its year-end natural gas savings target but did not meet its year-end electric savings target. The product did, however, exceed participation targets for electric and natural gas, with most projects closing in the fourth quarter. The product team coordinated with account management in the fourth quarter to assist in identifying and developing new projects – and will continue to do so in 2020.
- **Data Center Efficiency** — The product saw additional participation during the fourth quarter but did not meet the filed electric savings target. In 2019 the product rebated the second highest

number of EC plug fans since the measure became a prescriptive offering in 2015. Plans for 2020 will focus on continued efforts to improve the process for the study portion of the product and implementing additional recommendations from the recent program evaluation.

- **Energy Management Systems (“EMS”)** — The EMS product completed five projects within the fourth quarter and met its full year electric savings target. It did not meet its full-year gas targets, but both gas and electric spending were within budget. In the quarter, the Company continued to pursue strategies that could yield peak-coincident savings. The Company also began meeting with performance contractors to explore ways to better support their sales processes in 2020.
- **Heating Efficiency** — The product did not achieve its gas and electric savings targets. The ozone laundry measure did not see any participation in 2019, but the Company is continuing to reach out to participating distributors in order to foster participation. Plans are in place to add a custom electric and custom gas measure in 2020. The recently completed program evaluation has several actionable recommendations to improve product savings in 2020.
- **LED Street Lights** — The product far exceeded the filed target with two large cities participating; The City of Denver and Westminster. These two participating cities had 27,600 LED fixtures installed through the SL Rate offering.
- **Lighting Efficiency** — Top performing measures in 2019 were LED Tubes, high-bay fixtures, troffers, and exterior area lighting. The product implemented several changes in response to an impact evaluation including a net-to-gross (NTG) reduction. The NTG impact can be correlated to the savings realized, 25% reduction in achievement from the filed target. The New Construction offering transitioned out of lighting product and into the Business New Construction product. With the transition, the product updated to a Lighting Power Density (LPD) savings methodology that aligns with existing lighting new construction savings. Midway through the year, as part of the 19/20 DSM Plan launch, the product transitioned LED tubes, LED pin-based lamps, and LED mogul screw-based lamps from downstream to midstream LED Instant Rebate offering. The program wrapped-up the year completing a 2019 impact evaluation and baseline study. Actionable recommendations will be implemented in 2020.
- **Lighting – Small Business** — The product slightly missed its electric energy savings target for the year by ~ 1% and fell short of its gas savings target. Participation has consistently remained the highest with LED screw in lamps, LED tubes, LED troffers and LED area lighting measures. LED tubes, LED pin-based lamps and LED mogul screw base lamps transitioned from the downstream program to the Business LED Instant Rebate program at the beginning of Q3 and brought in 4.6 GWh through that channel. Direct Installation participation was significantly lower in 2019 than in previous years with the shift from lighting assessments to comprehensive energy analysis audits. The product is taking steps to increase participation and continue to use direct install as a tool to deepen customer relationships in 2020.
- **Motor & Drive Efficiency** — The product fell slightly short of its 2019 electric savings targets. The clean water pump measure did not become available in the fourth quarter as expected but will be available January 1, 2020 and is expected to provide significant savings. The product evaluation completed in the fourth quarter raised the NTG value from .65 to .81 and provided actionable recommendations going forward into 2020. The product had only 1 custom project in 2019 and is increasing efforts to expand custom opportunities in 2020.
- **Multifamily Buildings** — The product saw strong participation through the fourth quarter. The product did not meet year-end targets; however, Q4 outreach efforts targeted several large property management groups which will result in new partnerships for 2020.
- **New Construction** — The product performed very well in the fourth quarter and exceeded year-end targets for both electric and gas. Efforts early in the year were centered on educating our

energy modelers about the components affecting cost effectiveness and helping customers make the best choices. The New Construction Lighting offering was transitioned over to the Business New Construction product from the Lighting Efficiency product as of September 1, 2019. Through the transition, the product was updated to use a Lighting Power Density (LPD) savings methodology that aligns with the rest of the offerings under Business New Construction.

- **Recommissioning** — The product did not meet its filed target. The product has seen an increase in both recommissioning studies and building tune-ups, but implementation of recommended measures has not materialized. The requirement established on July 1, 2019 that customers must complete 75% of measures prior to study funding has not been in place long enough to influence 2019 savings but should yield positive results in 2020.
- **Self-Direct** — The product exceeded its filed electric savings target. The product also has a strong pipeline going into 2020.
- **Strategic Energy Management (SEM)** — The SEM product achieved a moderate 4.2 GWh within the fourth quarter. The quarter was outstanding in that twenty-one participants completed more than fifty opportunities. A wide range of institutional and industrial customers participated. Savings were also achieved from new enrollees as well as from prior program customers with whom the Company has recently engaged. The product enrolled two new participants just prior to the end of the year and began its first engagement for a group of commercial office buildings. In the 2020, the Company will continue to expand its outreach to medium-sized industrials and will offer free “SEM Qualification” Assessments to institutional customers. The Company will also meet with performance contractors to better understand how we might collaborate for more customer enrollments.

Residential Product

- **Energy Efficiency Showerheads** — Higher than expected levels of customer demand caused some delays in fulfilling and processing orders. As a result, some processing was delayed until early 2020. This caused the program to fall short of its savings targets.
- **Energy Feedback Residential** — The product did not meet electric savings targets and slightly underachieved its natural gas savings targets. The Company sent natural gas-focused reports to customers starting in September to encourage preparing for the winter season. Although natural gas savings increased slightly due to this initiative, the natural gas savings efforts fell short of expectations.
- **ENERGY STAR® New Homes (“ESNH”)** — The product continued its strong performance and completed 5,121 homes in 2019. Homes compliant with 2015 IECC or higher represented 62 percent of the qualifying homes in Q4. The product exceeded its gas and electric savings targets.
- **Evaporative Cooling** — The product exceeded the participation and energy savings targets for the year and stayed within budget. There is little rebate volume for this product during winter months. The Company filed a 60-day notice to simplify the rebate structure for the product which should continue to improve the customer experience in 2020.
- **High Efficiency Air Conditioning** — The product met participation and energy savings expectations but exceeded the budget, in part because rebate level changes were delayed until July. The new “AC with furnace” measure was implemented to claim the gas savings resulting from the duct sealing element of Quality Installation.
- **Home Energy Squad** — The product did not meet its year-end savings targets; however, participation in the Home Energy Squad product increased dramatically in the fourth quarter. Close involvement with Partners in Energy communities continued, with community buy-downs

driving much of the participation in the quarter. Squad Plus visits continue to be a popular choice for customers. These visits are intended to be a gateway to other energy efficiency products, such as Home Performance with Energy Star. Processes to promote Smart Thermostats and the AC Rewards demand response product during Squad visits continued to be refined. This new capability will offer an enhanced value proposition and a simplified experience for customers and should help to drive additional participation in both the Squad and AC Rewards products in 2020.

- **Home Lighting & Recycling** — Home Lighting and Recycling exceeded its energy savings target for the year. The product continues to see strong sales and customer interest in LED bulbs. The product offered discounts on multi-packs of A-line and specialty LEDs at select retailers throughout the year, which was well received by customers. Other efforts to increase sales included TV, radio, and social media campaigns, bill inserts, and educational opportunities at community events.
- **Home Performance with ENERGY STAR® (“HPwES”)** — The product did not meet year-end savings targets. A 60-day notice for the product redesign was completed in Q4 and the changes will roll out in Q1 2020. Additional changes to the product will be completed in 2020, and trade partner recruitment/training events will also be held to engage more customers.
- **Insulation & Air Sealing** — The product did not meet savings targets for the year. The product was promoted through heating season, highlighting heating cost savings, and was also featured on a “Stay Warm” promotional page. The “Stay Warm” message will assist in driving customers to the product during heating season to drive additional savings. Late in Q4 2019, qualifying shades were certified per program requirements. The new measure will be featured on the Company website, program collateral, and will be referenced by retailers selling qualifying cellular shades.
- **Refrigerator & Freezer Recycling** — The product had excellent participation in the fourth quarter due to an incentive email promotion of \$75. Additionally, there was a cross-promotion email sent to Renewable*Connect customers encouraging them to recycle their inefficient Refrigerator and/or Freezer. The product fell just short of its participation target by 6 units and did not meet the energy savings target. Overall, Refrigerator & Freezer Recycling had great participation and a strong 2019 year-end finish.
- **Residential Heating** — The number of participating trade partners using the 95% AFUE furnace rebate increased 8% in 2019, but the overall number of furnace rebates decreased by 25% from 2018. This is likely due to the odd summer weather in 2019 and the extended bonus rebates offered in 2018. Overall the product exceeded its gas savings target but fell short on electric savings.
- **School Education Kits** — The product exceeded its year-end gas savings target, but did not meet its electric savings targets. All School Kits, Specialty Kits, and Innovation Kits were reserved and shipped out to classrooms according to teachers’ preferences. Roughly 1,500 School Kits were shipped to students in Fort Collins, with assistance from Fort Collins Utilities. This partnership enabled the product to cost-effectively reach new customers in gas-only service territory. Customer-reported installation activity was strong once again, with over 90% of customers reporting that they had installed, or planned to install, their LED light bulbs. The Specialty Kit and Innovation Kit pilots will be offered again in 2020.
- **Thermostat Optimization** — Participation spiked as expected in the fourth quarter for the product reflecting an increase of traffic to the Xcel Energy store during the holiday shopping season. Manufacturer price reductions were combined with the product’s rebate creating a very attractive price point for customers. An email campaign by the Company to all eligible customers coincided with the Black Friday/Cyber Monday offers and again in December. Online instant rebates through retailers first introduced in the third quarter saw increasing participation month over month through the fourth quarter as well. These higher than typical monthly average

participation levels continued throughout the holiday shopping season resulting in a very strong fourth quarter.

- **Water Heating** — The product saw steady participation through the fourth quarter but failed to achieve its savings targets. Marketing campaigns for heat pump water heaters continued through Q4 and included direct mail and bill inserts to increase awareness.

Low-Income Product

- **Energy Savings Kits** — The product did not meet electric savings targets and slightly underperformed natural gas savings targets for 2019. However, participation and savings levels significantly improved from 2018. The Company engaged in lead follow-up efforts in the fourth quarter to those who opened emails but did not click to order a kit. Throughout 2019, Energy Outreach Colorado identified additional qualifying customers in addition to the email and follow-up marketing activities.
- **Multifamily Weatherization** — The product exceeded electric and slightly underperformed natural gas savings targets in 2019. Over fifty projects were completed, and the product has a robust pipeline of additional low-income multifamily buildings projects in 2020.
- **Non-Profit** — The product exceeded both electric demand reduction and energy savings targets in 2019 as many non-profit facilities focused on interior lighting and to a lesser extent HVAC system upgrades. The product fell short of natural gas savings targets. Over forty projects were completed in 2019. Average electric savings per project increased over the prior year as Energy Outreach Colorado concluded a small number of larger-scope projects that emphasize aid to people transitioning out of homelessness to affordable housing and to those seeking job training and placement assistance.
- **Single-Family Weatherization (“SFWx”)** — The product exceeded natural gas savings and electric demand reduction but fell slightly short of electric energy savings targets. Lighting, and refrigerator replacement drove significant electric savings and the implementer Energy Outreach Colorado made good progress in 2019 with evaporative cooler replacements in low-income single-family homes.

Indirect Product

- **Business Education** — Through the fourth quarter of 2019, the Business Education product achieved approximately 114 percent of the year-end participation target and generated 279 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 fourth quarter, the Company provided outreach through 19 community-based event days. In addition, the product 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** — Energy Analysis saw steady participation through the end of 2019. The Energy Analysis pipeline continues to grow due to a growing awareness and increased marketing efforts. Marketing to increase awareness and participation will continue to be a focus in quarter one of 2020, as well as the implementation of identified projects through more rigorous follow-up efforts.
- **Consumer Education** — Through the fourth quarter of 2019, Consumer Education achieved approximately 174 percent of the year-end participation target and generated 6,810 customer leads and 765 signups. Participation and outreach through key community events continues to create a meaningful opportunity to address energy efficiency with customers. By the end of fourth

quarter, the Company provided outreach through 104 community-based event days. In addition, the product 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 Benchmarking** — The Company supports municipalities within its service territory to reach their benchmarking targets. During the fourth quarter, 72 new participant buildings were added. This brings the total Colorado building count to 3,832.
- **Energy Efficiency Financing** — The Company is continuing to promote awareness by including financing messaging in marketing efforts for all relevant products and trade partner trainings, and by including financing information on websites for other products such as Home Performance with Energy Star and Residential Heating.

The Commercial Financing Product continues to promote its streamlined web portal. A new contract was signed with the National Energy Improvement Fund (NEIF) for 2020. The NEIF utilizes their web portal through the Xcel Energy website to make customer and contractor financing inquiries fast and convenient. Additionally, the NEIF uses its industry-wide relationships and leading-edge lender-partners to provide the best rates and terms to optimize energy efficiency projects. This includes C-PACE financing when appropriate.

- **ENERGY STAR® Retail Products Platform Pilot** — The pilot period ended on March 31, 2019. In the fourth quarter of 2019, several expenditures and support commitments drove spend. The Company submitted a 90-Day Notice on August 30, 2019, to terminate the pilot.
- **Home Energy Audit** — Participation in the Home Energy Audit product remained steady in the fourth quarter, although the product did not reach its year-end participation target. The discounted audit in combination with a Home Energy Squad visit continues to be a popular choice for customers. By promoting these combined visits, the Company hopes to simplify the customer experience, increase participation in the Home Energy Audit product, encourage participation in other DSM products, and eliminate customer confusion regarding the difference between a Squad visit and an Audit.
- **Partners in Energy** — The Company continued its education and market transformation efforts with 11 participating Colorado communities through their implementation phase and commenced the initial 6-month planning phase with four new communities in 2019 – Longmont, Pueblo County, Superior and Thornton – jointly assisting with the development and implementation of energy conservation targets and community action plans. The city of Westminster will use the same collaborative approach for Electric Vehicle fleet transition and adding charging stations to its infrastructure
- **DSM Planning & Administration** — During the fourth quarter the Company filed ten 60-day notices, including the launch of one pilot designed to offer commercial and industrial customers with curtailable load an opportunity to participate in a bid-ask demand response product.
- **Product Evaluations** — Energy Efficiency program evaluations were finalized in quarter 4. Program changes recommended in those evaluations are currently being reviewed and any notices required will be filed in Q1 2020.
- **Measurement & Verification** — The Company's third-party verification contractor completed random field inspections for prescriptive products for the 2019 M&V year with no significant variances.
- **Market Research** — Dun and Bradstreet (D&B) data of active business customer was uploaded internally to optimize targeted energy efficiency and demand response offerings. Data fields

include current NAICS industrial classification codes, facility square footage, business start date, number of employees and sales volume. Plans are additionally underway to refresh the residential home use study in 2020.

- **Product Development** — Current development efforts include:
 - A pilot that manages when electric vehicles charge to reduce their impact on system peak load and provide other possible system benefits; and
 - Direct load control switches with two-way communications that control air conditioners and water heaters.
 - Smart thermostat demand response for small and medium businesses.
 - A residential water heater demand response measure.
 - A behavior-based demand response product for residential customers that uses pre and post-event communications and social comparisons to reduce customer consumption during demand response events.
 - A pilot that uses thermal energy storage in refrigeration facilities to reduce the impact on system peak load
 - Geo-targeting Pilot – The Company evaluated marketing opportunities during the fourth quarter of 2019 and is preparing to implement in late-Q1/early-Q2 2020.

Demand Response Product

- **Critical Peak Pricing Pilot** — The pilot did not dispatch additional events during the fourth quarter, holding the total number at eight events during 2019. The pilot did not have additional enrollment changes during the fourth quarter, ending 2019 with nine participants and 4.5 MW of potential controllable load. Fourth quarter efforts continued to focus on meetings with potential customers, with a concentrated focus on previous ISOC 1-Hour Notice participants that are no longer eligible for the ISOC product. The Company also continued its work on the RFP launched in 2018 to acquire an implementation service partner to supplement the Company's marketing and administration of the pilot and increase in the pilot's participation.
- **Peak Partner Rewards** — The product did not dispatch additional events during the fourth quarter, holding the total number at two events during 2019. There were no changes to the product's participation during the quarter, resulting in the product ending 2019 with 16 participants and 14.9 MW of capacity commitment. Fourth quarter efforts continued to focus on meetings with potential customers. The Company also continued its work on the RFP launched in 2018 to acquire an implementation service partner to supplement the Company's marketing and administration of the product and increase in the product's participation.
- **Residential Battery Demand Response Pilot** — This pilot tests the use of residential batteries to provide demand response. The Company has completed a request for proposal from software vendors and is contracting with two vendors. During the contracting phase, the Company is developing pilot enrollment and communications materials to support pilot launch.
- **Residential Demand Response** — The Residential Demand Response portfolio is facing a challenging recruiting environment and did not reach its year-end targets. About two-thirds of the new devices added in the fourth quarter were Saver's Switches. The Saver Switch program ran a promo that generated significant sign ups this quarter. The AC Rewards program is onboarding a new vendor that will be delivering a new enrollment portal, which is expected to make the enrollment and customer experience simpler and easy to use in 2020.
- **Product Evaluations** — Demand response evaluation draft results were presented to the Company in late Q4. The schedule for these evaluations lags behind the EE product evaluations due to the need to wait to survey customers at the conclusion of the traditional June-September control season.