



2019 Third Quarter Colorado DSM Roundtable Update

November 14, 2019

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 third quarter 2019 (cumulative Jan. 1 – Sept. 30, 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 389 GWh and gas savings of 445,724 Dth in the 2019 calendar year. This represents approximately 77% of the 2019 electric DSM plan’s energy savings target of 502 GWh and 70% of the gas target of 637,269 Dth.

The following section provides product status activities for the third 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 has exceeded its year-end electric savings targets; however, it is not forecasting to meet the gas savings targets. The focus of the duration of the year is to ramp up the number of onsite audits, continue to build a gas pipeline, and engage and build relationships with trade partners. The Company expects to file 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 is not currently on track to meet its 2019 electric savings targets. This is due to a continued lull in the pipeline. Fourth quarter efforts will include maintaining and growing relationships with key trade partners, increasing product awareness through email campaigns, and exploring new tactics to bolster the future pipeline, including adding the opportunity for smaller (under 50 HP) compressed air studies to be conducted.
- **Cooling** — The product is currently not on track to meeting its 2019 electric savings targets due a weaker than expected cooling season. The product also has not seen any large custom cooling projects that typically make up half of the forecasted achievement. One large distributor is planning to catch up on applications in October and November. The Company expects to file a 60-day notice in the fourth quarter to update incremental cost assumptions for both prescriptive and midstream measures.
- **Custom Efficiency** — The product is on track to meet its year-end gas target but is not currently on track to meet its year-end electric target. Two new projects were closed in the third quarter. The product team met with account management in the third quarter to discuss the product, including ways the product team can assist account managers in identifying and developing new projects.
- **Data Center Efficiency** — The product continued to see participation during the third quarter but is not expecting additional participation during the fourth quarter. The Company hosted a Data Center Advisory Board meeting during the third quarter. The advisory board meeting covered product changes that launched with the start of the 2019-2020 DSM Plan and allowed time for

open discussion around additional opportunities to encourage energy efficiency in data centers. Attendees also discussed ways to improve the processes for the study portion of the product.

- **Energy Management Systems (“EMS”)** — The EMS product closed two projects in the third quarter, which has typically been the product’s slowest quarter of each year. The product is expected to finish the year near its electric savings target. In the fourth quarter, the Company will publish a new application form, and will update information for trade partners. The product achieved no gas savings during the third quarter and is not expected to reach its year-end gas savings target. The Company has concluded the completion bonus offered earlier in the year but will continue to target dual-fuel customers for outreach to drive additional gas savings.
- **Heating Efficiency** — The product is not expected to achieve its gas and electric savings targets. The product is working closely with account management to close projects in the fourth quarter for both electric and gas opportunities.
- **LED Street Lights** — The product is forecasting electric savings to far exceed the filed target due to new participating cities. The City of Denver and Westminster are both participating in 2019.
- **Lighting Efficiency** — The product is seeing a continual decrease in participation through the third quarter and tracking short of its 2019 year-end target. China tariffs have directly impacted the lighting industry, passing along upward of 20% additional costs to the customer. The additional costs have slowed projects or altogether shifted timelines. A 2020 net-to-gross evaluation is expected to complete by year end.
- **Lighting – Small Business** — The product remains on track to achieve its 2019 electric savings targets; however, the product is not forecasted to meet its gas savings targets. Fourth quarter efforts will include additional training on network lighting controls to try and increase market adoption, continued market segmentation efforts to promote cost-effective measures, and exploring new marketing tactics to bolster future pipeline.
- **Motor & Drive Efficiency** — The product remains on track to achieve its 2019 electric savings targets. A Clean water pump measure was added to the product in the third quarter. The product is currently going through an evaluation expected to be completed in the fourth quarter.
- **Multifamily Buildings** — The product saw continued participation through the third quarter. The product is not anticipated to meet year-end targets despite outreach efforts that have successfully increased participation. These efforts will continue in the fourth quarter and are expected to drive further participation increases through the end of the year and into 2020.
- **New Construction** — The product performed very well in the third quarter and is on track to reach its year-end savings targets. New Construction Lighting was launched under the New Construction umbrella on September 1, 2019. While the offering did not see significant participation in the third quarter, participation is expected to pick up in the fourth quarter and 2020. The focus for the fourth quarter will remain educating trade partners on changes that took effect in July for the 2019-2020 plan.
- **Recommissioning** — The product will not meet its filed goal. The product continues to receive and approve recommissioning studies. The product is investigating why customers are slow to implement recommendations. As of July 1, 2019, the product only reimburses the customer for studies if a significant number of low and no cost measures are implemented.
- **Self-Direct** — The product has exceeded its filed electric savings target. After a busy second quarter, no new projects closed in the third quarter. One additional project is expected to close by

year end. The Company will continue discussions with engineering firms to add projects to the project pipeline.

- **Strategic Energy Management** — The Company has enhanced the customer engagement process by combining Process Efficiency with the Energy Information Systems offering to become a single Strategic Energy Management (“SEM”) product as of July 1, 2019, following implementation of the 2019 Plan. Within the third quarter, eighteen customers completed thirty-one projects. Projects continued to be from a wide range of industrial and institutional customers. The product has met its filed savings target. In the fourth quarter, the product will begin its first engagement for a commercial office building and will continue to expand its outreach to medium-sized industrial customers as well as hospitals.

Residential Product

- **Energy Efficiency Showerheads** — Higher than expected levels of customer demand caused some delays in fulfilling and processing orders in the third quarter. As a result, quarterly achievements were not uploaded this quarter and will be updated in fourth quarter. Reports from the marketing campaigns show that the product is on track to meet its savings targets.
- **Energy Feedback Residential** — The product is not on track to meet electric savings targets; however, it is forecasted to achieve natural gas savings targets. The Company sent natural gas focused reports to customers starting in September with the intent to show customers their gas usage without heating and encourage preparing for the winter season. Natural gas savings are showing a slight increase due to this initiative. Early results from the digital only versus a combination of digital and print report refills show that while customers receiving digital only reports are saving energy, those receiving both types typically show higher savings. One possible explanation is that more people in a household see the printed report, whereas only the account holder sees the digital only report. Results will continue to be monitored as this refill continues to ramp up.
- **ENERGY STAR® New Homes (“ESNH”)** — The product continues its strong performance and completed 1,459 additional homes in the third quarter. Homes compliant with 2015 IECC or higher represented 61 percent of the qualifying homes. The product is forecasted to exceed its gas and electric savings targets.
- **Evaporative Cooling** — Instant rebates through retail locations proved to be popular with customers, most significantly in July. The success of distributor/wholesale mid-stream instant rebates for their dealers (contractors) was more limited. Overall this warm weather product has met its 2019 savings targets.
- **High Efficiency Air Conditioning** — Year-to-date mini-split heat pump (“MSHP”) rebate use is 22% higher than the same time period in 2018. Rebates for standard efficiency AC units with quality installation (ie13-14 SEER) is now 16% of all AC-ASHP rebates, compared to under 2% in 2018. Overall the product is on target to exceed 2019 savings targets.
- **Home Energy Squad** — Slow participation in the Home Energy Squad product continued through the third quarter, mirroring trends in previous years. Marketing efforts continued with a customer email and social media campaigns. The cross-promotion effort with the Refrigerator Recycling product continued to provide a steady flow of customer leads. Close involvement with Partners in Energy communities continues to be pursued, and the first community buy-downs were redeemed late in the third 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 were established in the third quarter to begin promoting Smart Thermostats and the AC Rewards demand response product during Squad visits. 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 the future.

- **Home Lighting & Recycling** — Home Lighting and Recycling has exceeded its energy savings target for the year. The product continues to see strong sales and customer interest in LED bulbs. 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 is not on track to meet year-end savings targets. A product redesign is in progress and should be completed Q1 or Q2 2020.
- **Insulation & Air Sealing** — The product is on track to meet savings targets for natural gas. The product is not on track to meet electric savings targets. The product will be promoted through email as heating season begins. The product is 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.
- **Refrigerator & Freezer Recycling** — The product has had excellent participation in 2019, with 5,420 refrigerators and freezers recycled through the end of the third quarter. The product is on track to meet or exceed the participation target but will not meet the electric savings target. A bonus incentive email campaign and cross-marketing with the Home Energy Squad and School Education Kits will help to drive continued participation through year end.
- **Residential Heating** — Furnace and EC Motor rebate participation continues to be strong. The number of active trade partners has increased 6% from 2018, although customer participation is very similar to 2018. The product is on target to meet its 2019 targets.
- **School Education Kits** — Fall enrollment was very strong in the third quarter. All School Kits and Specialty Kits have been reserved for the year and are scheduled to ship out to classrooms according to teachers’ preferences. Additionally, 90% of the kits for the Innovation Pilot have been reserved by quarter end. This pilot will assess advanced power strips as a possible future school kit measure and will evaluate a professional presentation delivery model as a future opportunity for the product.
- **Thermostat Optimization** — The third quarter saw lower participation levels than the second quarter. Achievement for the product continues to lag slightly lower than projected. The instant rebate channel for the product launched in the third quarter through both in-store and online retailers. Results for this new channel are anticipated to be available in the fourth quarter. Accounting adjustments clearing in the third quarter drove lower reported spend.
- **Water Heating** — The product saw steady participation through the third quarter. The expansion of instant rebates was completed in the third quarter. In-store trainings were held to increase employee knowledge of the available rebates. Marketing campaigns for heat pump water heaters began in the third quarter to raise customer awareness.

Low-Income Product

- **Energy Savings Kits** — The product is not on track to meet participation targets and will not achieve year end savings targets. Direct mail results from the second quarter are reflected in the third quarter reported savings. The Company sent out an email offer to qualifying customers at the end of the third quarter, and a follow-up email will be sent at the beginning of the fourth quarter to those that opened but did not click to order a kit. This will conclude the marketing efforts for the year. Energy Outreach Colorado continues to identify additional qualifying customers.

- **Multifamily Weatherization** — The product is on track to meet year end savings targets. Thirty-seven projects are completed as of the third quarter, and there are over 20 projects remaining in the pipeline.
- **Non-Profit** — The product is on track to meet year-end electric savings targets but will likely fall short of natural gas savings targets. Twenty-five projects were completed as of the third quarter, and the pipeline remains full, with over 25 projects projected to be completed in the fourth quarter. Cost effective natural gas savings measures continue to be a challenge to find, with larger heating upgrades being the most needed but also most expensive.
- **Single-Family Weatherization (“SFwx”)** — The product is on track to exceed natural gas savings targets but fall short of electric savings targets. Lighting continues to be the measure contributing the largest portion of savings to the product, currently accounting for 70% of electric achievement.

Indirect Product

- **Business Education** — Through the third quarter of 2019, the Business Education product achieved approximately 74 percent of the year-end participation target and generated 167 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 third quarter, the Company provided outreach through ten 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** — Through the third quarter of 2019, Energy Analysis received good participation. The audit timeline is much closer to target and more aligned with our vision of the product. Recent marketing efforts including an email campaign are expected to increase the pipeline of audits for Q4 and for 2020.
- **Consumer Education** — Through the third quarter of 2019, Consumer Education achieved approximately 108 percent of the year-end participation target and generated 4,359 customer leads and 452 signups. Participation and outreach through key community events continues to create a meaningful opportunity to address energy efficiency with customers. By the end of third quarter, the Company provided outreach through 91 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 third quarter, 71 new participant buildings were added. This brings the total Colorado building count to 3,752.
- **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. The National Energy Improvement Fund (NEIF) utilizes their web portal to make customer and contractor inquiries fast and convenient. 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. C-PACE information was recently added to the Multi-Family Buildings product page.

- **ENERGY STAR® Retail Products Platform Pilot** — The pilot period ended on March 31, 2019. In the third quarter of 2019, several expenditures and support commitments from 2018 cleared, driving 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 increased throughout the third quarter. The discounted visit in combination with the 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 15 participating Colorado communities, jointly assisting with the development and implementation of energy conservation targets and community action plans. The 11 communities in the product's implementation phase saved an average of approximately 1% of total community electric consumption and .2% of total community natural gas consumption through Xcel Energy utility programs in the first half of 2019. This does not include any residential lighting participation or impacts from Energy Feedback. Four communities are in the 6-month planning phase with data tracking on community DSM participation. Electric and natural gas savings will be available in 2020.
- **DSM Planning & Administration** — During the third quarter the Company filed eight 60-Day Notices, including the launch of one pilot designed to manage when electric vehicles charge to reduce their impact on system peak load and provide other possible system benefits. The Company also filed one 90-Day Notice to terminate the Energy Star Retail Product Platform product.
- **Product Evaluations** — Customer research for the 2019 product was completed in the third quarter and results will be reported next quarter. The lighting baseline study resumed in the third quarter as well. The review of engineering and program processes for setting baselines will be completed by the end of the year.
- **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** — Updates from Dun and Bradstreet (D&B) of active business customer categorization data has been received and uploaded internally. Data fields include current NAICS and SIC 1987 industrial classification codes, facility square footage, business start date, number of employees and sales volume. The D&B data is a key component in identifying energy efficiency and demand response opportunities.
- **Product Development** — Current development efforts include:
 - Research and development into advanced energy communities which are district-scale development projects that have aggressive energy targets and include multiple energy systems (energy efficiency, demand response, advanced grid, renewable energy, storage, and electric vehicles.) The Company is looking into product designs that can help meet the needs of these projects;
 - 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** — In partnership with the distribution operations team, the pilot initiated five test events to observe the existing saver-switch and smart thermostat product impact upon the Kendrick feeder. In addition, non-event day data was gathered in order to begin developing a hypothetical baseline. The Company will begin developing marketing plans during the fourth quarter.

Demand Response Product

- **Critical Peak Pricing Pilot** — The pilot dispatched seven events during the third quarter, resulting in a total of eight events year-to-date in 2019. The pilot had one participant unenroll during the third quarter, but a new participant requested to join the pilot and is currently enrolling two premises. The pilot currently has nine participants and 4.5 MW of potential controllable load. Third 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 dispatched two events during the third quarter. There were no changes to the product's participation during the quarter, resulting in the product ending the quarter with 16 participants and 14.9 MW of capacity commitment. Third 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. As of the third quarter, the product has deployed/enrolled about 3,800 devices. About two-thirds of the new devices were Saver's Switches.