



## 2022 Fourth Quarter Colorado DSM Roundtable Update

February 15, 2023

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 2022 (cumulative January 1 – December 31, 2022) 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 471 GWh and gas savings of 878,526 Dth in the 2022 calendar year. This represents approximately 90 percent of the 2022 electric DSM plan’s energy savings target of 523 GWh and 110 percent of the gas target of 799,708 Dth.

The following section provides product status activities for the fourth quarter of 2022 in the Business, Residential, Income-Qualified, and Demand Response Products, as well as Indirect Products & Services and other related activities.

### Business Program

- **Business Energy Assessments** — The product has seen participation through its indoor & outdoor agriculture assessment, commercial streamlined assessments, and building assessments offerings. The Business Energy Assessments product launched in May 2022 with a training that included all vendors, product teams and engineers. Savings were difficult to predict until Q4 due to the length of time it takes for projects to be implemented once an assessment has been provided. The bonus of several end use products combined with the Business Energy Assessment bonus helped customers implement projects they otherwise wouldn’t have had the budget for. The bonus this program provided was a 20% implementation bonus capped at 75% of the project cost and \$5,000. The largest market that took advantage of the bonus was indoor agriculture. The product ended up tripling the amount of savings forecasted due to this bonus.
- **Business HVAC+R Systems** — Continuing efforts to build the project pipeline included creating and marketing the large 50% rebate bonus for prescriptive and custom measures. An increase in marketing outreach through email, direct mail, and bill onsets have targeted commercial customers as well as trade partners, but supply chain complications continue to have an impact on the HVAC market. Electric achievements were low in this program but many of the equipment measures were captured in holistic programs like Business Energy Assessments and Strategic Energy Management. Gas savings achievements were significantly higher than goal because of great trade partner engagement. We expect equipment influenced by the bonus to improve program performance in 2023 and beyond.
- **Compressed Air Efficiency** — The product saw a decline in savings in the fourth quarter compared to Q3. Supply chain concerns continue to impact the market and pipeline for the product, and ended up pushing some projects into 2023. Planning for a training that will take place in 2023 began in Q4. This training will bring together industry players and educate them on technical aspects of compressed air systems.

- **Custom Efficiency** — Q4 was a slow quarter for the program, as outstanding projects were pushed to 2023 due to supply chain and cost pressures. Continued efforts to grow the pipeline for 2023 are in place, including the recent introduction of a tool for the sales teams to better identify cost-effective custom projects.
- **Data Center Efficiency** — Q4 brought savings for the program, with a couple larger projects closing prior to the end of the year. The company met with trade partners and customers individually to discuss pipeline, industry trends, and supply chain constraints. Some projects were pushed into 2023 due to supply chain and customer timelines.
- **Energy Management Systems (“EMS”)** — The Company has made fast progress in working with Xcel Product Development and the TRC evaluators to identify product changes that will bring Controls/EMS and Demand Response together for meaningful transition in the marketplace. Currently the product fails 72% of submitted applications. The TRC Evaluation recommends product changes such as adding prescriptive measures, increased training on demand peak load shifting for Trade Partners, and applying a 50% incremental cost reduction for cost-effective accuracy. Post-pandemic high vacancy rates for commercial property continue to decrease investment in new controls systems. Inflation and lack of cost-effective incentives are the main contributors to low project submittals. The Company will act on the TRC evaluation immediately when it becomes available March 1. Product changes will be submitted in a 60 day notice in 2023.
- **LED Street Lights** — The product slightly exceeded its filed target.

**Lighting Efficiency** —The Lighting Efficiency product achieved approximately 80 percent of its energy savings target. The product is still experiencing some lingering impacts from pandemic in terms of cost increase and supply chain constraints impacting customer’s decisions to implement projects. The product implemented bonus rebates on April 15 in an effort to bring down upfront equipment costs. Bonus rebates were made available for prescriptive interior fixtures and LED tubes through the midstream LED Instant rebate channels. The product also launched bonus rebates for LED grow lighting equipment on July 1. Bonus rebates were marketed to customers through a variety of channels including direct mail, email, social media, paid search, radio and video advertising, trade/industry events and presentations. As a result, the product did see a boost at the end of the year particularly within the prescriptive LED grow lighting segment which brought in 12.9 GWh of savings by the end of the year. In addition the Prescriptive and Custom Lighting rebate offerings also completed a process and impact evaluation this year and results and findings will be finalized in early 2023.

- **New Construction** — The product ramped up through the fourth quarter with an increase in savings, and the product reached its targets for both electric and gas with commodity savings. The bulk of the savings were generated from the Energy Design Assistance product. but the Energy Efficient Buildings product had already succeeded its target in the third quarter. The products have seen project timelines extend farther due to supply chain and budget constraints, however with the large pipeline of projects, the products remained consistent. The Business New Construction underwent an Impact Evaluation in 2021 and the new Net-to-Gross Ratio for the product in 2022. The Codes and Standards offering is continuing to influence the market by hosting trainings and providing assistance to jurisdictions that are exploring updating their energy code. The offering helped eight communities in Company service territory advance their energy codes throughout the year.
- **Self-Direct** —Fortunately, a few of customer projects, impacted by the COVID-19 pandemic, finally came to fruition after multiple years of delay. The Company continued to meet with engineering firms and vendors to identify prospective projects and recognizes that most customers gravitate to our holistic, full-service programs.

- **Small Business Solutions** — The product closed out 2022 with good momentum but fell short of electric energy and gas savings targets. The small business segment has been deeply impacted by the pandemic and businesses have been hesitant to invest in energy efficiency upgrades. The product has continued to leverage business walks with local City/Town representatives, promotion a partnership and membership events. The product is diversifying marketing media and messaging to reach different customer sub-segments featuring the free assessment and guidance on improving energy efficiency and lowering customer bills. The free assessment will be marketed along with bonus rebates to both customers and trade partners through a variety of channels ranging from grassroots business to business canvassing and presence at small-business focused events, to direct mail, e-mail, and social media.
- **Strategic Energy Management (“SEM”)** — The product completed the most extraordinary quarter in its history. More than two hundred projects were completed by a variety of customers. Over half of the achievement was by Food/Beverage Processing, Indoor Agriculture, Office, and Hospital customers. Government buildings and schools were also major contributors. Fourth quarter activities included proactive revisits of enrollees. To help address supply chain issues, the program encouraged delivery and installation of equipment where the orders could be partially fulfilled. Note that only *actual* installations contributed to achievement. The remaining equipment will be rebated and booked in 2023, after it is actually installed. In the next quarter, the company will continue to manage the enrollees’ opportunity registers for deeper savings.

### Residential Program

- **Energy Efficiency Showerheads** — The product did not achieve electric and gas savings targets for 2022. A fourth quarter push to increase participation was very successful, however, lower engagement rates earlier in the year impacted product performance. Direct mail proved to be the most successful communication channel but comes at an increased cost when compared to email campaigns.
- **ENERGY STAR® New Homes (“ESNH”)** — In total, 6,657 homes were credited to the product through Q4. The Program did not add any all-electric homes in Q4, keeping the total for 2022 at nine. Three more homes had heat pump water heaters in Q4, bringing the total to five for 2022. Homes compliant with 2015 IECC or higher represented 86% of the qualifying homes. Two-thirds of Program homes were less than 20% better than local energy code.
- **Home Energy Insights** — The product did not achieve electric or gas savings targets in 2022. Efforts to increase participation within the program launched in the fourth quarter as well as campaigns to increase customer interaction within the web portal. The Company will continue to assess how to drive higher participation through multiple program touchpoints.
- **Home Energy Squad** — Participation increased as staffing levels rose in Q4. The product increased participation and savings over the the prior year but did not achieve electric or gas targets for 2022 The product continues to provide virtual and in-home visits, customers are most interested in in-home standard and Squad Plus visits.
- **Home Lighting & Recycling** — The product surpassed the 2022 annual energy savings and spend target. Sales remained strong throughout the year and the number of bulbs sold were comparable to 2021, as customers are looking for easy ways to save money. While sales were about the same as 2021, the savings achieved were lower due to net-to-gross and Appliance Bill changes. The product offered bonus discounts on multi-packs of LED A-line, BR30 and retrofit kits at select retailers to help customers save energy by upgrading their bulbs in various locations around their home.

- **Insulation & Air Sealing** — Overall participation was steady throughout the quarter and the product exceeded its 2022 targets. The Marshall Fire Bonus was enacted after the natural disaster caused smoke damage to many homes. The Company is granting a 100% rebate bonus on the Insulation & Air Sealing measures installed within four affected zip codes. This bonus remains in effect if installation is completed between 1/1/22 and 3/31/23. This bonus is expected to continue to increase participation in the zip codes affected.
- **Multifamily Buildings** — The product saw a lower than expected electric savings in 2022. On the gas side, there was a substantial increase in our gas savings from previous quarters. We continued our communications through various email campaigns as well as in-person trade show participation to both increase the product awareness and drive lead generation with our larger properties. In addition, the main landing page for the site registration was optimized to improve usability. In 2023 we look to increase outreach through crosspromotions with other programs and increased trade show participation.
- **Refrigerator & Freezer Recycling** — The product saw higher participation in Q4 than in Q3, but still fell short of its filed goal. A successful email campaign in mid-November spiked participation numbers and had a lasting effect for several weeks. Based on the success of that campaign, we will look into implementing more email communications with our customers in 2023 whenever possible. In the future, the Company will continue to use cross-promotional tactics, email campaigns, and direct mail to increase awareness and program participation. Contact-free and in-home pickups are still available to customers based on preference.
- **Residential Heating & Cooling** —For the most part, participation in this product is comparable to participation in 2021. Exceptions include significant increases in heat pump measures and enrollments in smart thermostat optimization/Eco+. The product exceeded its energy savings target for gas, but fell short of its energy savings target for electric. This is primarily due to lower than anticipated participation in heat pump measures for customers replacing electric resistance heat.
- **School Education Kits** — The product continues to be popular with teachers, students and parents resulting in high participation in the classroom and at home with the installation of energy efficient devices. Students participate in an energy conservation-focused curriculum and receive a kit of energy-saving devices to install in their homes. The spring and fall campaigns met expectations with strong classroom participation and exceeded filed targets.
- **Whole Home Efficiency** — (formerly Home Performance with ENERGY STAR®) —. Participation was underwhelming throughout the year and the program did not meet its filed goals. Collaboration with the product implementer is expected to increase participation from Trade Partners and customers. An ongoing program evaluation is expected to discern perceived issues with program rules/participation. Delivery of evaluation results are expected in Q1 2023. Continual efforts with the program implementer to increase awareness and adoption in 2023 are ongoing.

### **Income Qualified Program**

- **Energy Savings Kits** — The product was not able to achieve gas or electric savings in 2022. Large lead times slowed the ability to increase kit distribution. The vendor also was impacted by delays in distributions in 2022. Both a quicker distribution process and increased communications are planned in 2023.
- **Multifamily Weatherization** — The product did not achieve gas and electric savings targets for 2022. The product performed closer to target on the gas side. Continued large lead times and supply chain availability slowed project completions.

- **Non-Profit** — The product was unable to make up the deficit and fell short of both its electric and gas savings targets. The contingency plans to help boost savings took time to implement and will be captured in 2023.

**Single-Family Weatherization (“SFWx”)** — The product performed well and exceeded both natural gas and electric savings for 2022. A strong performance from foodbank bulb distribution helped push the product across targets in 2022. In 2023 we will continue with this strategy.

### Indirect Program

- **Business Education** — Through the fourth quarter of 2022, the Business Education product achieved approximately 7% over the year-end goal of 1,971 participants, with a total of 2,120 total participants or quality engagements with the Business Education offerings. With in-person events returning in 2022, the company was able to return to its main form of engagement and participation at local events. The company also explored new tactics to educate businesses to our energy and money-saving offerings through print and digital opportunities with the Denver Post. The company participated in the Broncos Business Boost promotion as a sponsor, which highlighted Xcel Energy’s commitment to educating and supporting small and medium sized local businesses. Face-to-face event opportunities along with print and digital advertising will continue to be important in engaging with our business customers.
- **Business Energy Analysis** — Business Energy Analysis product ties into the Business Energy Assessments product. The product is known as Commercial Streamlined Assessments publicly. The product conducts assessments similar to ASHRAE level 1. The goal is to get close to 500 assessments. The product hit its forecasted goal for savings but did not meet the forecasted assessment quantity goal. Many projects came in Q4 almost doubling the savings. The Business Energy Assessment bonus applied to Energy Analysis helping the customer implement opportunities found on assessments. The most common equipment customers upgraded were VFDs which were also the highest energy savings found on most reports.
- **Consumer Education** — Through the fourth quarter of 2022, Consumer Education achieved approximately 35% over the year-end participation target generating 37,235 participants. With in-person events returning in 2022, the company was able to return to its main form of engagement and participation – activating at large local events to engage with customers face-to-face. The first quarter of 2022, the Company participated primarily in home shows as these were some of the main events that returned at the start of quarter. The second quarter ushered in a variety of events targeting residential customers such as the Denver Arts Festival, Boulder Pride, Earth Day events and more. The third quarter was the busiest yet with a number of outdoor festivals and fairs, Broncos training camp and more. The fourth quarter participation numbers resulted from several quality customer engagements at local holiday events in and around the Denver metro. These face-to-face engagement opportunities provide the company with valuable ways to drive energy and money saving educational messaging that support the company’s DSM residential programs and resources.
- **Energy Benchmarking** — The Company supports municipalities within its service territory to reach their benchmarking targets. During the fourth quarter, 842 new buildings were processed. Some of these are repeats as a result of new building owners benchmarking their buildings. The continued heavier volume in the fourth quarter is attributed to extended deadlines on municipal benchmarking ordinances in Denver, Boulder and Fort Collins with their original deadlines being June 1. Additionally, building owners submitted new requests to obtain aggregated whole building data for their buildings ahead of compliance deadlines in December 2022 for the new Colorado statewide benchmarking ordinance. The total Colorado building count is now up to 6,675.
- **Energy Efficiency Financing** — The Company continues to develop future financing offerings to support residential customers. On the business side, the Company promotes financing options to

businesses and commercial trade partners via the Xcel Energy website which connects to the National Energy Improvement Fund's (NEIF) portal allowing access to the financing proposal request process. The company has also been working with the Colorado Clean Energy Fund to determine how we can offer their state sponsored financing options to mid/small commercial customers for their energy efficiency projects.

- **Home Energy Audit** — Participation increased over the prior year as customer's grew more comfortable with in-home visits. The product supplies home energy audit services through an implementor and independent auditors.
- **Partners in Energy** — Partners in Energy closed out 2023 actively working with over 20 Colorado communities to promote energy-efficiency. This includes a number of communities that graduated from Partners in Energy but continue to engage with the program to receive support in meeting their conservation goals. Outreach and education around beneficial electrification, particularly heat pumps has become, has been in high demand as an increasing number of communities evaluate how to reduce energy related emissions. The program continued to promote Home Energy Squad with multiple communities and leveraged local newsletters and social media to promote energy saving tips to offset high winter heating costs. We continue to see a return to in-person events that provide venues for education about community energy plans and opportunities to conserve.
- **Market Research** — A product experience tracking study continues to provide high level feedback, primarily residential customers participating in energy efficiency and demand response programs. The study's primary focus is ease of participation and customer satisfaction. Updates from Dun and Bradstreet are now available using a refreshed list of all active metered business customers provided previously for matching. The 2022 Home Use study report is complete. Finally, activities to support supplemental direct testimony and discovery for the EE and BE potential study were completed by the consultant that conducted the original study.
- **DSM Evaluation, Measurement & Verification** — Final evaluation presentations and reporting occurred for most products in late Q4.
- **DSM Planning & Administration** — During the third quarter the Company continues to work through Discovery and the regulatory process for both the Company's 2023 DSM Plan as well as the combined 2022 DSM/BE Strategic Issues filing.
- **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;
  - Direct load control switches with two-way communications that control air conditioners and water heaters;
  - 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 demonstration project that will study how commercial customers can shift load to times with excess renewable generation on our system as indicated by very low system marginal prices;
  - A new gas boiler measure motivated in part to address gas distribution constraints in Summit County;
  - A thermostat-based gas demand management research project motivated in part to address gas distribution constraints in Summit County;
  - Investigating how to serve oil & gas customers more effectively
  - Dual-fuel commercial heat pumps
  - Cold climate heat pumps

- Integrated lighting and HVAC controls
- Redesigning Energy Management Systems

### **Demand Response Program**

- **Critical Peak Pricing** — The Critical Peak Pricing (“CPP”) product dispatched two winter events in February 2022. CPP traditionally dispatches events in the summer but has the option to call winter events. In the third quarter of 2022, the product called 8 events; 5 events in July, 1 event in August, and 2 events in September. In the fourth quarter of 2022, the product called one event in November. Therefore, 2022 ended with a total of 11 events CPP. The product added two new participants in the second quarter of 2022 and as of the end of 2022 there are currently 35 total participants in the product. Recruiting efforts and meetings with potential customers have continued through the end of the year.
- **EV Critical Peak Pricing** — The EV Critical Peak Pricing (“EV-CPP”) dispatched 1 event in fourth quarter, for a total of 11 events in 2022. The new S-EV rate launching in August resulted in 15 customers leaving the EV CPP program for the new rate. The Company will continue enrolling eligible interested EV customers into the EV CPP product alongside the new S-EV offering.
- **EV Optimization** — The Charging Perks pilot (dynamic optimization) and Optimize Your Charge (static optimization) offerings continued enrolling customers in the fourth quarter of 2022. Charging Perks has been extended through the end of 2023, with an increased goal of 1,000 total customers.
- **Geo-targeting Pilot** — In the fourth quarter the Company continued to offer a full rebate for smart thermostats that are enrolled in our AC Rewards offering to our target customers. Discussions are underway to identify options for potential utilization of DSM geo-targeting in other business areas that could need deferment of capital investment including on our natural gas system to help manage gas capacity in Summit County, CO and the West Metro area of Denver, CO. Several promotions are active in those regions, but are unrelated to this electric pilot.
- **Peak Day Partners** — Peak Day Partners is a voluntary product where enrolled participants have the option to respond to price signals from the company. The product finished the year with four participants with a projected potential event contribution of about 22MW. In the fourth quarter there were two control events with accepted offers.
- **Peak Partner Rewards** — The Peak Partner Rewards (“PPR”) product dispatched two winter events in February 2022. PPR traditionally dispatches events in the summer but has the option to call winter events. In the third quarter of 2022, the product called 2 events both occurring in September. Overall, the product called a total of 4 events in 2022. The product added 9 new participants in the first quarter of 2022, 2 new customers in the second quarter 2022, and no new participants in third and fourth quarter of 2022. The product currently has a total of 31 participants. Recruiting efforts and meetings with potential customers have continued through the end of the year.
- **Residential Battery Demand Response Pilot** — The Company continued enrolling customers in 2022 and enrolled approximately 150 customers over the life of the pilot. The Company began charging events in the first quarter 2022 and has now successfully dispatched 65 total events over the life of the pilot. Vendor contracts are being extended as we prepare to transition to the Renewable Battery Connect program.
- **Residential Demand Response** — The Saver’s Switch product has installed about 6,200 switches in 2022. The majority of these were maintenance replacements of older switches that have outlived their useful life. These switches were originally deployed prior to 2005. The AC

Rewards product saw most of its participation in 2022 through the Bring Your Own Thermostat channel and the product had over 9,600 new participants throughout the year. Over 2,000 of these new enrollments are attributed to the launch of Google Nest devices being allowed into the program, which occurred during the third quarter. The Smart Water Heater product continues to struggle with supply of control modules. As of the end of 2022, one unit has been deployed.

- **Small Commercial Building Controls** — Direct installations were slower than anticipated throughout the year. Email marketing campaigns did launch in the second quarter of 2022 and enrollments increased. The Company will continue to test and analyse additional marketing tactics. There were just over 400 enrollments throughout the course of 2022.