



## 2023 Third Quarter Colorado DSM Roundtable Update

November 9, 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 third quarter 2023 (cumulative July 1, 2023 – September 30, 2023) 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”) products have achieved electric savings of approximately 215 GWh and gas savings of 340,650 Dth in the third quarter of 2023. This represents approximately 44% of the 2023 electric DSM plan’s energy savings target of 486 GWh and 38% of the gas target of 898,487 Dth.<sup>1</sup>

The following section provides product status activities for the third quarter of 2023 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** — This product began Q3 2023 with a strong pipeline for indoor agriculture and commercial streamlined assessments, which represent the majority of product participation. Indoor agriculture customers have given Public Service great feedback regarding the value of an indoor agriculture specific assessment in grow houses. Building Energy Assessments requests are increasing. Statewide building performance ordinances and standards are increasing the pipelines with many customers required to either obtain a ASHRAE 1 or 2 assessment or reduce a large amount of energy use. The Business Energy Analysis and Assessments product manager is working with different city ordinance programs to help market to these customers and reduce any confusion on lessening energy use. Outdoor Agriculture has implemented direct and in-direct mail marketing to the Colorado farming community. Outdoor Agriculture Assessments have not seen as large of a pipeline increase as we originally expected. Through our communications with these customers we have found that their budgets are tight and therefore energy reduction is not a current focus. There is also currently no building performance ordinance or standard for the Colorado farming community. This program offers a 20% implementation bonus capped at 75% of the project cost and \$5,000. The bonus is valid for customers with invoice dates from May 1, 2023 – November 15, 2023. All paperwork must be turned in by December 1, 2023. The bonus is stackable with other end-use product bonuses such as HVAC+R and Lighting but will be capped at 75% of the project cost. In Q3, we saw a large portion of indoor agriculture and commercial streamlined customers utilizing the bonus. This has also helped customers experiencing aftereffects of the Covid pandemic and budgetary inflation decide whether to implement. There is a focus to help gas customers with electrification measures through commercial streamlined assessments. The program will complete an RFP by the end of 2023 with work beginning in January 2024.

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<sup>1</sup> Savings targets given here reflect the Comprehensive Settlement Agreement regarding the Company’s 2023 DSM & BE Plan, Proceeding No. 22-A0315EG.

- **Business HVAC+R Systems** — As expected, the 50% rebate bonus increased product savings participation. Through the 60-day approval process, we met our 2023 DSM Plan settlement agreement target and added many prescriptive heat pump measures (e.g., air source, ground source, water source heat pumps and heat pump water heaters) to the portfolio. The measures that lived in the midstream rebate channel remain, but have a guaranteed pass down incentive to our customers. The hope is that these new measures will see increased participation and lead to more beneficial electrification measures along with lower carbon emissions from HVAC equipment sold in Colorado.
- **Compressed Air Efficiency** — This product saw a slight savings increase in Q3. Supply chain concerns continue to impact the market and product pipeline resulting in delayed projects (late 2023).
- **Custom Efficiency** — Due to supply chain and cost pressures, Q3 was a slow quarter for this program with delays (late 2023 and 2024) impacting outstanding projects. Efforts to grow the pipeline for the future are in place, including customer and sales team education.
- **Data Center Efficiency** — In Q3, the Company made progress and booked several projects in Q3. The Company continues to meet with trade partners and customers individually and in training sessions to discuss pipeline, industry trends, and supply chain constraints. The pipeline for 2023 remains strong, with most projects expected to close in Q4.
- **Energy Management Systems (“EMS”)** — The Company has made fast progress in creating marketing material and an application for three prescriptive measures. Other items completed were increased training on demand peak load shifting for Trade Partners, and applying a 50% incremental cost reduction for cost-effective accuracy. Completed successful projects are slowly trickling in since the changes became allowable on September 1, 2023, through the 60-day notice approval process. The Company has 33 projects in the 2023 pipeline but only four have completed. The Company expects to see these and 30% more EMS projects complete in 2024 due to product changes.
- **LED Street Lights** — The product is on track to achieve its forecasted target.
- **Lighting Efficiency** — The Lighting Efficiency product achieved approximately 88% of its energy savings target. The prescriptive LED grow lighting rebate has brought in 81.3 GWhs of savings through September. As more customers convert their grow lighting facilities to LED, the customer segment for grow lighting will become saturated and the overall savings for this rebate will decline. The estimated time frame for the decline of this product is end of Q2 2024.

The lighting bonus is attributing to the increase in non-grow light savings. To ensure customers who were making purchasing decisions on equipment upgrades could take advantage of the lighting bonuses, the bonus was extended through September 30, 2024. The invoice dates are now January 1, 2023, through September 30, 2024, and all completed project paperwork must be turned into Xcel Energy by November 30, 2024. This extension will help mitigate the decline of grow lighting savings.

An evaluation for the instant or mid-stream lighting product is currently underway and should be completed by December of 2023, with the results available in early 2024.

- **New Construction** — This product ramped up for Q3 achievements and is on target for both electric and gas commodity savings. The electric savings were nearly doubled in Q3 compared to first two quarters and that was due to large projects finalizing. The forecast and pipeline remains strong with an expectation for the rest of the calendar year to ramp up. The bulk of the savings were generated from the Energy Design Assistance product. 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 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** — In Q3, several customer projects came to fruition and the sales team inquired about project pipeline status. 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** — This product has continued to make progress towards electric and gas savings targets in Q3. Ongoing downward economic trends, and generally poor economic health continue to affect the small business segment as businesses are hesitant to invest in energy efficiency upgrades. The Company continues to leverage partnerships with local city/town representatives and have a presence at segment specific events to increase the ease of product access and program participation. This product continues to diversify marketing media and messaging to reach different customer sub-segments with an emphasis on the free assessment, energy efficiency improvement guidance, and lowering customer bills. The free assessment, along with bonus rebates, will be marketed to both customers and trade partners through a variety of channels including grassroots business-to-business canvassing and presence at small-business focused events, direct mail, e-mail, and digital ads.
- **Strategic Energy Management (“SEM”)** — This program completed nearly 20 Gwh in Q2 and is at 44% of its year end goal. The largest savings came from indoor agriculture customers, and saw substantial savings from hospitals, government facilities, and food/beverage processing. Q3 activities included proactive revisits of enrollees, as well as recruiting and enrolling new customers into the SEM program. The program has a hefty pipeline for both Q3 and Q4. The program is anticipating coming in near 88% to filed goal. In Q4, the company will continue to manage the enrollees’ opportunity registers for deeper savings, grow opportunity registers for new enrollees to build out 2024 pipeline, and focus on concluding the program’s RFP.

### **Residential Program**

- **Energy Efficiency Showerheads** — With responses from traditional e-mail campaigns bringing in less than expected participation, the showerhead program has relied on other marketing channels to drive participation. This program had recent success with a business reply card boosting yearly numbers significantly. Between now and the end of the year, additional campaigns including events, multiple email campaigns, and online advertising have been planned.
- **ENERGY STAR® New Homes (“ESNH”)** — In total, 4,376 homes were credited to the product through Q3. Additionally, the Program recorded 25 all-electric homes through Q3. This program paid 14 heat pump water heater rebates in Q3, bringing the total to 18 for the year. Homes compliant with the IECC 2015 or more recent energy codes represented 97% of the qualifying homes. Ten percent of participating homes were in jurisdictions on 2021 IECC. Approximately 70% of Program homes were less than 20% better than local energy code.

For Marshall Fire recovery, 42 homes have received rebates. The Company processed 31 homes for code compliance, the remaining 11 were for beyond code.

- **Home Energy Insights** — Home Energy Insights has increased the population size significantly with the addition of a new cohort of eligible customers. Additionally a new report design has been launched and we are closely monitoring and awaiting initial customer reactions. Other initiatives included a recently launched solar version of the report aimed specifically at residents with solar

installations, and an in development electric vehicle version. Continued segmentation is part of the long-term plan for the program to help match customer's power profiles.

- **Home Energy Squad** — This program achievement is off to a slow start in reaching desired participation targets. The program has increased staffing levels (qualified technicians and auditors) to help more customers achieve energy efficiency through the direct install program and be aware of larger projects that will also save energy. This program offers the standard Home Energy Squad visit which includes an energy efficiency audit. The product is driving participation and savings through targeted marketing campaigns and promotes additional programs offered by the Company.
- **Home Lighting & Recycling** — This product has surpassed the 2023 annual energy savings and spend target. This product is offering bonus discounts on select packs of LED A-line and specialty bulbs at select retailers to help customers save energy by upgrading their bulbs in various locations around their home. Effective October 1, 2023, the program reduced the number of stores and locations our discounts are available in to meet the income qualified/disproportionately impacted community standards in the 2023 DSM BE Plan Settlement Agreement.
- **Insulation & Air Sealing** — In Q3, overall participation was steady and the product is on track to meet its targets. The Marshall Fire Bonus which was enacted after the natural disaster caused smoke damage to many homes, ended on June 30, 2023 coinciding with a lowered participation rate in the affected zip codes.
- **Multifamily Buildings** — In Q3, the program savings have gradually started to bring the program more current with the forecast. Participation has been increasing and we look for a greater number of opportunities to close as the initial assessments are completed and direct install completed. Several events with AAMD have increased outreach and engagement with property management. A bill onsert is currently running in conjunction with SBES through the end of the year. This onsert is targeted at smaller apartment building owners. Gas savings continue to be hard to reach as the program pushes forward with a strong electric performance.
- **Refrigerator & Freezer Recycling** — Savings and participation are significantly lower in Q3 compared to the first two quarters this year due to the situation with ARCA. All savings and participation from the outstanding units will be reflected in Q4, however, we anticipate initial projections to fall below our initial 2023 projections. Once the program resumes, we will integrate propensity modeling into our marketing tactics in order to identify and reach customers that are statistically more likely to participate in the program. In the future, the Company will continue to use cross-promotional tactics, e-mail 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** — Participation in this product is up across the board compared to participation in 2022. In particular, heat pump and heat pump water heater participation have increased significantly. Overall, the program's savings are significantly higher than at this same time in 2022, on the gas side and are comparable to this time in 2022 on the electric side.
- **School Education Kits** — Classroom participation is on track for 2023 targets as fall orders continue to be received and ship to participating schools in the service territory. Savings are expected to meet projections with the majority realized in Q4. The product is popular with teachers, students and parents resulting in high participation and 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.

- **Whole Home Efficiency (formerly Home Performance with ENERGY STAR®)** — Participation was lower than anticipated through Q3 however, participation and enrollments are increasing over the previous two years. Collaboration with the product implementer is expected to increase participation from Trade Partners and customers. Work continues on incorporating improvements identified in the program evaluation results combined with continual efforts with the program implementer to increase awareness and participation with customers.

### Income Qualified Program

- **Energy Savings Kits** — Kit distribution is now ongoing and approximately 2/3 of the Energy Savings Kits have been distributed. The Energy Savings Kits will continue to contribute additional savings and educational awareness through an onsert included in each kit. The onsert will feature pertinent information in both English and Spanish around our TOU offerings and other energy efficiency programs. About 2,000 smaller kits have been ordered to support the Red Truck initiative. Savings are on target for 2023.
- **Multifamily Weatherization** — In Q3, this product has not completed any new projects. This product has a strong pipeline and we look for those to close out in Q4. From an outreach standpoint, there has been an increased focus on customer education through text messaging, and other collateral. This messaging will continue to evolve as TOU and SmartMeter rollouts occur.
- **Non-Profit** — In Q3, this product continues with strong momentum. Energy Savings Kit distribution to several local non-profit organizations have helped support the program engagement and associated savings. There continues to be a strong effort to share educational materials with non-profit organizations on ways to further increase energy efficiency and create greater savings. This is being done onsite by EOC staff or by a staff review of energy bills in order to identify further opportunities. The program looks to meet it's forecasted commitments for both electric and gas.
- **Single-Family Weatherization ("SFWx")** — In Q3, this product continues with a solid start. From an outreach and education standpoint, the focus has been on promoting LEAP assistance to previous program participants through texting and partnership campaigns. There has also been an increase in program surveys to better understand areas of opportunity and growth. Based on the survey feedback, changes to the offerings will be considered and proposed. TOU and other efficiency offerings will continue to be the focus in the months to come. Food bank bulb savings have started to reflect in the forecast and the program continues to perform well towards it's 2023 goals.

### Indirect Program

- **Business Education** — In Q3, the Business Education product achieved approximately 45% of the year-end target of 1,971 participants. The Company sponsored and staffed one event in Q1 (Colorado Restaurant and Bar Show) where the Company engaged with small to medium-sized business owners and decision-makers about the energy-saving opportunities available to them. This product promoted energy saving tips and messaging to customers via creative Denver Post articles in Q3. The product will be ramping up its messaging with the launch of Business Boost in Q4, which is an initiative to support local businesses presented by the Denver Broncos. Partnerships and key engagement and networking opportunities like face-to-face events and print and digital advertising will continue to be important in engaging with our business customers.
- **Business Energy Analysis** — The Business Energy Analysis product ties into the Business Energy Assessments product. This product is publicly known as Commercial Streamlined Assessments. This product conducts assessments similar to ASHRAE level 1. The goal is to get close to 500 assessments. The product is forecasting to hit its savings goals by the end of the

year. The Business Energy Assessment bonus applied to Energy Analysis aided the customer implement opportunities found on assessments and increased the assessment pipeline. All the building performance ordinances and standards around the state have also increased the pipelines with many customers being required to get an ASHRAE 1 or 2 assessment or else reduce a large amount of energy use. The product manager for Business Energy Analysis and Business Energy Assessments is working with the different city ordinance programs to help market to these customers and reduce any confusion on how to reduce energy use. The most common equipment customers upgraded were VFDs which were also the highest energy savings found on most reports.

- **Consumer Education** — In Q3, Consumer Education achieved 90% of its year-end target of 27,514 participants. Warmer months brought increased events with more attendees. The Consumer Education product thrives by sponsoring and activating at large local events to be able to engage with customers one-to-one. The intention is to sponsor local community events and well-attended gatherings that people love. In Q3, the Company sponsored and activated on-site at 25 events that attracted a large number of attendees. Looking ahead to Q4 and colder months, the product plans to sponsor holiday events (Parade of Lights and Blossoms of Light.). These face-to-face engagement opportunities provide the Company with valuable ways to drive energy and money-saving educational messaging, and giveaways like LED light bulbs, 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. In Q3, 625 new buildings were processed. Some of these are repeats as a result of new building owners benchmarking their buildings. Colorado commercial and multi family property building owners are required to benchmark any building larger than 50,000 square feet by June 1, 2023. The total Colorado building count is now up to 8,190.
- **Energy Efficiency Financing** — Residential finance offerings are still promoted through the Company website which links customers to options available through the Colorado Clean Energy Fund. On the business side, the Company promoted 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.
- **Home Energy Audit** — Participation is strong and continued growth is expected throughout the year as customers are encouraged to participate in Company rebates for larger retrofit projects. The product supplies home energy audit services through an implementor and independent auditors. Customers are encouraged to utilize the advising service offered by the program that is designed to help customers navigate company rebate programs.
- **Partners in Energy** — This program continued to support communities in their creation and implementation of energy action plans. Multiple outreach events were staffed with bilingual staff, providing interactive activities and giveaways including LED bulbs, lighting kits, night lights, solar charging banks, kids activity books and educational cobranded collateral (some of it translated to Spanish). There continues to be strong interest in the offering with additional communities interested in updating past energy action plans to incorporate beneficial electrification measures as a component of their green energy work.
- **Market Research** — Dun and Bradstreet industry information has been updated, specifically industry categorization helpful for identifying DSM opportunities. A residential pulse and an Attitudes, Awareness and Usage ("AAU") study have completed during Q3. Both residential studies track customer behaviors and attitudes involving a variety of topics. Findings include a rising awareness of smart meters and differences in TOU energy usage behavior. Rising customer bills continues to act as a stronger driver for energy decisions compared to environmental concerns. A product experience tracking study continues to monitor satisfaction with the various residential energy efficiency/demand response programs.

- **DSM Evaluation, Measurement & Verification** — 2023 program evaluations are underway for six products:
  - Lighting Efficiency (midstream measures) and Small Business Solutions (direct installation and midstream measures) in the Business Program;
  - Home Energy Audits, Home Energy Squad, and Multifamily Buildings in the Residential Program, and;
  - Multifamily Weatherization in the Income Qualified Program.

Evaluations are tracking later than past years in response to the later implementation date of the 2023 plan. This delay is intended to help evaluations better consider the effects of known changes in the 2023 plan and/or proposed changes in the 2024-2026 plan in prospective recommendations. Only some residential program primary data collection activities were completed by the end of Q3, with the remainder underway.

The Company also completed activities to characterize the BE NTG for the upcoming 2024-2026 DSM BE plan application, as directed by the Colorado Public Utilities Commission in the Strategic Issues order.

- **DSM Planning & Administration** — During Q3 the Company continues to work on its triennial demand side management and beneficial electrification plan.
- **Product Development** — Current development efforts include:
  - 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 thermostat-based gas demand management research project motivated in part to address gas distribution constraints in Summit County;
  - Dual-fuel commercial heat pumps;
  - Commercial heat pump water heaters;
  - Duct sealing;
  - Cold climate heat pumps;
  - Redesigning Energy Management Systems;
  - Small engine electrification;
  - Networked Lighting Controls Demand Management;
  - Appliance Standards; and
  - Community Ground Source Heat Pump

### **Demand Response Program**

- **Critical Peak Pricing** — The Critical Peak Pricing (“CPP”) product has not dispatched any events in the first three quarters of 2023. In 2022, it dispatched two events in Q1, zero in Q2, eight in Q3, and one in Q4 for a total of 11 events. CPP traditionally dispatches events in the summer but has the option to call winter events. The product added one new participant in Q2 2023 (two new customers were added in 2022). The product currently has a total of 36 participants. Customers had the option to attend a pre-season webinar and received a test notification in Q2. Recruiting efforts and meetings with potential customers have continued throughout the year including education on the programs at the Xcel Energy Expo in April 2023.

- **EV Critical Peak Pricing** — The EV Critical Peak Pricing (“EV-CPP”) dispatched six successful summer season events in Q3 2023. EV-CPP traditionally dispatches events in the summer months, but has the option to call events all year round. The product currently has a total of 18 participants.
- **EV Optimization** — In Q3, the Charging Perks pilot (dynamic optimization) and Optimize Your Charge (static optimization) offerings continued enrolling EV customers. Charging Perks has been extended through the end of 2023 and the customer cap of 1,000 has been removed. Several advancements, computer coding, and automation upgrades were integrated into Charging Perks to increase enrollment and tracking efficiencies. The pilot program has proven successful as more data arrives to illustrate that the dynamic charging approach is helping with avoided capacity, CO<sub>2</sub> emissions savings, and avoided renewable curtailment. Optimize Your Charge annual incentives were processed in Q3 and performance data collection issues were documented in a request for additional assistance with program data automation.
- **Peak Day Partners** — Peak Day Partners (“PDP”) is a voluntary product where enrolled participants have the option to respond to price signals from the Company. The product finished Q3 with four participants with a projected potential event contribution of about 22MW. In the first three quarters of the year, there were two accepted control event offers.
- **Peak Partner Rewards** — The Peak Partner Rewards (“PPR”) product dispatched one winter event in January 2023, otherwise no other events have occurred through the end of Q3 2023. PPR traditionally dispatches events in the summer but has the option to call winter events. The last two events were called in Q3 2022, both occurring in September. Overall, the product called a total of four events in 2022. The product has added two new participants in the third quarter of 2023 (11 new customers were added in 2022). The product currently has a total of 33 participants. Customers had the option to attend a pre-season webinar and received a test notification in Q3. Recruiting efforts and meetings with potential customers have continued throughout the year including education on the programs at the Xcel Energy Expo in April 2023.
- **Residential Battery Demand Response Pilot** — The Company signed extension agreements with the pilot vendors (Tesla and SolarEdge) to extend contracts to support the Renewable Battery Connect program that launched on June 20, 2023. Renewable Battery Connect represents the next version of this product that was originally filed in the **2022-25 Renewable Energy Plan** (Proceeding No. 21A-0625EG) and approved by the Colorado Public Utilities Commission in September 2022. The primary product design changes from the pilot are the increased upfront incentive amount and the requirement for the battery to be 100% charged by an on-site solar system which enables the battery to qualify as a renewable energy resource.
- **Residential Demand Response** — In Q3, the Saver’s Switch product has installed approximately 7,700 switches. The majority of these switches were maintenance replacements of older switches that have outlived their useful life. These switches were originally deployed prior to 2006. The AC Rewards product has had over 10,000 new enrollments to date in 2023, with the majority coming through the Bring Your Own Thermostat channel. The Smart Water Heater product continues to struggle with supply of control modules. As of now, one unit has been deployed.
- **Small Commercial Building Controls** — Direct installations have been slower than anticipated throughout 2023. Recruitment efforts and customer education will continue in 2023, and customer marketing campaigns are being planned for 2024. In Q3, Small Commercial Building Controls dispatched three successful summer season events.