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 second quarter 2017 (cumulative Jan. 1 – Jun. 30, 2017) 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 220.7 GWh and gas savings of 216,479 Dth in the 2017 calendar year. This represents approximately 52% of the 2017 electric DSM plan’s energy savings target of 421.6 GWh and 34% of the gas target of 636,078 Dth.

The following section provides product status activities for the second quarter of 2017 in the Business, Residential, Low-Income, and Demand Response Programs, as well as Indirect Products & Services and other related activities.

**Business Program**

- **Commercial Refrigeration Efficiency** – The product is currently on target to exceed its 2017 energy savings target. This is due in part to a large industrial project closing out at mid-year, attributing a significant amount of the year-to-date energy savings. The product is expected to achieve its gas target as well. Focus for the remainder of the year will be to close out some of the remaining pipeline for 2017 and to build the 2018 pipeline.

- **Compressed Air Efficiency** – The product is expected to achieve its energy savings target for 2017. The Company forecasts this achievement due to the pipeline of projects and an influx of studies from trade partners.

- **Computer Efficiency** – The product is expected to meet its savings targets. The product has seen strong participation numbers from the prescriptive offerings and forecasts for the upstream portion of the product is expected to remain steady.

- **Cooling** – The product is on track to meet the year-end target. Midstream products are continuing to see strong growth, particularly with water source heat pumps and air-cooled chillers. The product is in the early stages of a comprehensive product evaluation and will focus on multiple delivery channels.

- **Custom Efficiency** – The product has not had any gas achievement year-to-date; however, a very large gas project is expected to be completed this year. The Company has increased outreach strategies with both Business Solutions Center and Account Managers to engage more customers directly to build the gas pipeline. The Company expects these efforts to result in achievement of the year-end gas targets. The pipeline for electric projects is not as robust as in past years, and the product is not on track to meet the year-end target for electric savings.

- **Data Center Efficiency** – Completed projects slowed during the second quarter and the Company forecasts to slightly underachieve the year-end target. Prescriptive rebates for plug
fans with electronically commutated motors ("ECM") continue to be popular among data center customers.

- **Energy Management Systems ("EMS")** – The EMS product is on pace to meet its full-year electric savings target. The Company continues to invest in third-party Strategic Energy Manager activities and studies to support the development of the product. During the second quarter, two new customers enrolled in the Energy Information Systems ("EIS") component, and more customers expressed intent to enroll. Natural gas savings are on pace to exceed the full-year target. Active follow-up with customers to accelerate any duel-fuel projects to drive additional gas savings continues.

- **Heating Efficiency** – The product is not on track to meet the filed year-end target. However, upcoming marketing efforts include outreach tactics such as email, digital marketing, events, trade partner outreach and education. Marketing efforts will promote the highest cost-effective measures such as tankless water heaters, pipe insulation, and steam traps to gain more participation. The introduction of unit heaters and educational outreach to increase awareness will continue in the third quarter to build pipeline for the remainder of the year.

- **LED Street Lights** – The LED Street Lights product has retrofitted 3 GWh of HID to LED street lights and is on track to meet year-end achievement target.

- **Lighting Efficiency** – The product is forecasting to significantly exceed its year-end achievement target. LED lamp and fixture costs have come down significantly which has allowed customers to achieve a 3 year or less simple payback. The product continues to manage costs as rebate levels will need to be reduced as LED technology costs decline.

- **Lighting – Small Business** – The product is expected to exceed its year-end electric and gas savings targets and the pipeline is strong for the remainder of 2017. The Company continues to focus on education of trade partners and customers, optimizing product offerings, and making the product simpler and easier for customers to participate.

- **Motor & Drive Efficiency** – The product is expected to meet its 2017 targeted savings by year-end with a well-rounded 2017 pipeline. Efforts for the third quarter will revolve around closing out the projects in the existing pipeline and beginning to build the 2018 pipeline.

- **Multifamily Buildings** – During the second quarter, the Multifamily Buildings product completed all assessments and direct installations for the 2016 customers still in the pipeline from the pilot program while also building an aggressive pipeline to achieve 2017 product targets. The Company is forecasting to overachieve natural gas savings targets but not achieve its forecasted electric targets. The Company is continuing to build the trade partner directory to better serve customers who are interested in completing the larger stage-three projects.

- **New Construction** – The product is not forecasting to meet its electric or gas savings targets due to project delays during construction and an increasing number of customers taking gas transportation service. The Company is developing the Energy Efficient Buildings pipeline to close the forecasted energy savings achievement gap.

- **Process Efficiency** – The product is not forecasted to achieve its year-end savings targets. However, two new customers were enrolled during the second quarter, three follow-up studies were completed, the Company is encouraging the participants to consider new measures, and the Company continues to actively cross-sell the combination of Process Efficiency and EIS. This approach has had early success with two customers signing multi-year agreements for this “strategic energy management” approach.
Recommissioning – The product continues to struggle with customer implementation of identified savings measures and forecasts to fall short of the electric and natural gas savings targets. The study pipeline remains strong with several more studies approved during the second quarter. Efforts will continue to focus on the importance of implementing the recommended measures identified in the study. The Small Building Tune-Up promotion launched during second quarter and several customers signed up to participate in the offering.

Self-Direct – The product had a successful second quarter but does not forecast to achieve its year-end savings targets. Additional projects continue to move through the pipeline and additional savings are expected to be achieved later in 2017.

Residential Program

Energy Efficiency Showerheads – The product successfully launched in June of this year. The product now offers customers the option to purchase a handheld showerhead or spa style showerhead, in lieu of the standard, free showerhead model, through a customized e-commerce platform. Regardless of the customer’s showerhead choice, all kits include bathroom and kitchen faucet aerators. Purchases of non-standard showerhead models have been greater than forecast indicating a high level of interest from customers. However, the Company is not forecasting to achieve its year-end forecast.

Energy Feedback Residential – Current forecasts are that year-end energy savings will come in below the energy savings targets. However, new participants, enrolled beginning in the first quarter, are anticipated to be large enough in the third quarter to begin measuring energy savings. Marketing efforts promoting the wise use of central air conditioning systems were included in the print and digital home energy reports starting in June.

ENERGY STAR® New Homes (“ESNH”) – The product forecasts to exceed the year-end participation and savings targets. As anticipated, there continues to be an increase in the percentage of homes built in jurisdictions where 2012 IECC or higher has been adopted. Furthermore, the Company has developed a partnership with the Colorado Energy Office (“CEO”) that focuses on the Grand Junction area. The partnership has two objectives: increase the number of homes where a HERs rating is conducted and increase engagement with non-participating builders. CEO provided funds to a local Energy Rating company to perform no cost ratings, and the Company provided two “Selling High Performance” home training sessions. This partnership and work continues into third-quarter, and we will have more to report in later Roundtable meetings.

Evaporative Cooling – The product increased targeted marketing efforts – customer mailings, mass emails, social media – advertising and promotions, contractor and retail training in the second quarter as part of the product’s busy season. Contractors and retailers reported flat evaporative cooling unit sales compared to the same period in 2016 and the product does not forecast to achieve its energy savings targets. The Company increased vendor incentives, effective March 1, to drive more participation and so far that has led to a higher proportion of total product participation coming from trade partners and retailers.

High Efficiency Air Conditioning – The product is on track to meet its energy savings targets. The new ductless Mini-Split Heat Pump rebate offering, available beginning March 1st, is off to a slow start, with 31 units rebated. Expectations are that awareness of the measure will increase and adoption will increase. The lower tier of mini-splits (15 – 20 SEER) has been rebated at a rate of two-to-one compared to the higher tier units (21 SEER+).

Home Energy Squad – The product made significant participation gains in the second quarter compared to the first quarter. The Company increased marketing and promotional efforts including a successful flash sale resulting in 86 visits scheduled in a 48 hour period. The
Company also found that homeowners associations and 55+ communities seem to be successful avenues for mass signups and easy implementation. While the product is still currently behind pace to meet target, the average savings per home are higher than forecasted, especially on the electric side. The Company attributes the higher energy savings per home to the expanded LED offering launched on May 1. This offers more complimentary options as well as expanded $5 a la carte premium bulbs. In the third quarter the Company will launch Home Energy Squad in the Xcel Energy Store which is expected to further increase participation.

- **Home Lighting & Recycling** – The product is performing well and is expected to exceed its targets. The Company is working on updating in-store signage to increase participation and to develop educational pieces to increase knowledge of the benefits of LEDs and help customers select the LEDs that are right for them.

- **Home Performance with ENERGY STAR® (“HPwES”)** – The product had a successful second quarter; however, participation dropped off significantly in June which the Company attributes to the extreme heat Colorado experienced and summer vacation schedules. This drop off appears to be an annual trend and the Company expects participation to rebound in the third and fourth quarters. The Company doubled the high efficiency furnace measure rebate in the second quarter to align with the rebate increase in the standalone Residential Heating product and to better incentivize high-efficiency furnaces because these measures are some of the most cost-effective measures offered through the product.

- **Insulation & Air Sealing** – The product had a strong second quarter and is forecasted to exceed the gas savings targets and approximate the energy savings targets. The Company is looking at promotional bundling opportunities in lieu of bonus rebates during the second half of the year.

- **Refrigerator & Freezer Recycling** – The product does not forecast to achieve its year-end energy savings target. A multi-channel marketing plan will continue through the third quarter with bill inserts, direct mail, email and social media, and radio advertising scheduled for the coming months to increase awareness and drive participation.

- **Residential Heating** – Both ECMs and high-efficiency furnaces are performing well and the product is forecasting to achieve its targets. Of the new 2017 ECM “retrofit” measures which are installed in an existing furnace, one has been rebated so far.

- **School Education Kits** – The product is forecasted to achieve its energy savings targets and shipped half of the planned kits during the second quarter. The other half are expected to ship during the fall semester.

- **Water Heating** – The product achieved its gas savings targets during the second quarter and is expected to significantly exceed the target by year-end. The product is also on pace to exceed its electric savings targets by year-end. The product also forecasts to remain within its budget. Efforts to improve cost-effectiveness continue and only low- to no-cost promotions will be employed for the remainder of 2017.

**Low-Income Program**

- **Energy Savings Kits** – During the second quarter initial direct mail and email campaigns were launched to qualifying customers on the Low-Income Energy Assistance Program (“LEAP”) list. However, LEAP participation has declined and savings are not on track to meet target. In order to boost participation in the product and achieve the forecasted energy savings targets, the Company is working on new ways to promote the product to qualified customers such as working with local agencies and assistance programs.
• **Multifamily Weatherization** – The product is forecasted to meet or exceed its electric and natural gas savings targets. Partnership with Energy Outreach Colorado (“EOC”) to help fund equipment retrofits and process improvements for electric and natural gas energy efficiency measures in low-income, multi-family buildings continues and has resulted in nine completed projects and 27 projects in the pipeline.

• **Non-Profit** – The product is forecasted to meet or exceed its electric and natural gas savings goals. To-date, the partnership with EOC has resulted in 14 completed projects and 36 additional projects identified.

• **Single-Family Weatherization (“SFWx”)** – The product continues to see participation from agencies around the state in both the Weatherization Assistance Program as well as the Colorado Affordable Residential Energy program (“CARE”). The SFWx implementer recently contracted with Platte River Power Authority (PRPA) and Black Hills Electric to start implementing CARE in some of the Company’s gas-only territories; this will help the product push toward achieving its gas savings targets. The Company continues to support behavior change workshops for low-income customers which have both educational and direct installation components.

**Indirect Program**

• **Business Education** – In the second quarter of 2017, the Business Education product achieved approximately 22% of the year-end participation target and generated 92 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 second quarter, the Company provided outreach through 11 community-based events. In addition, the program has been supported through energy efficiency messaging via the Energy Solutions newsletter, as well as a mass marketing print campaign. The combination of these initiatives continues to support DSM achievements.

• **Business Energy Analysis** – Marketing efforts in 2017 continue to include social media, direct mail, and e-mail campaigns, as well as an on-site energy audit promotion if needed. Additional efforts continue to focus on education of both trade partners and customers. The Company continues to see increased participation as a result of the ENERGY STAR® rating deadline approaching on September 1st. Once the ENERGY STAR® promotion ends, the product expects to ramp up promotional efforts to continue participation growth through 2017. Currently, the product is forecasting to be under target; however, the Company expects to see a strong increase in participation for 2017 as a result of the increased promotional efforts.

• **Consumer Education** – In the second quarter of 2017, Consumer Education achieved approximately 25% of the year-end participation target and generated 1,001 customer leads and 120 program signups. Participation and outreach through key community events continues to create a meaningful opportunity to address energy efficiency with customers. By the end of first quarter, the Company provided outreach through 37 community-based events. In addition, the program has been supported through conservation messaging in residential newsletters and web-based channels. The combination of these initiatives continues to drive participation in DSM products.

• **Energy Efficiency Financing** – The Company has launched a territory-wide residential finance offering through a partnership with LendKey and is in the process of introducing the offering to the trade partner network. Elevations Credit Union’s residential energy efficiency (unsecured) loan continues to be used by residential customers in Denver and Boulder counties. On the commercial side, the Company and Harcourt, Brown & Carey Energy and Finance presented three webinars for commercial trade partners in April with nearly 100 attendees and three more webinars in June for 75 commercial customers. Each session highlighted the new on-line
The Company is planning workshops in the fourth quarter specifically for commercial financing in conjunction with a training on “Influencing Efficiency Upgrades - Tips, Tools, and Techniques for Selling an Efficiency Project.”

- **Home Energy Audit** - The product continues to move toward its participation targets; however, it is likely that electric participation will fall slightly short of target while gas participation will overachieve its target. The infrared audits remain the most popular of the three audit types and give customers the most in-depth evaluation of their home. The energy advising service continues to see strong participation and customer satisfaction surveys reflect positively on the program. The Company will continue to look at ways to promote this service to keep customers engaged and conversion rates high.

- **Energy Benchmarking** - The Company supports municipalities within its service territory to reach their benchmarking goals. During the second quarter, 672 new participant buildings were added representing a 76% increase from the first quarter. The city of Boulder saw 56 new buildings benchmarked and the city of Denver saw 527 new buildings benchmarked during the second quarter.

- **DSM Planning & Administration** – The Company held stakeholder meetings to discuss its DSM Strategic Issues proceeding and incorporated feedback from these discussions into its completed and filed application.

- **Program Evaluations** – Evaluations are underway with reports expected at the end of the year. The final phase of the Energy Efficiency Financing evaluation, which was started in 2014, will be completed in the third quarter.

- **Measurement & Verification** – The Company’s third-party verification contractor, Nexant, completed random field inspections for prescriptive products for the 2017 M&V year, with no significant variances. The resulting data will be utilized for the 2017 DSM Annual Status Report.

- **Market Research** – The Company is updating its business segmentation data to better target its business customers for DSM products.

- **Product Development** – Current development efforts include:
  
  - Partnering with the Department of Energy and Lawrence Berkeley National Laboratory on a research project to study Integrated Building Management Systems. The project tests how networked lighting controls, daylight redirecting window film, deep daylight dimming, and HVAC controls can be managed together to save energy.
  
  - Offer a prescriptive rebate for advanced lighting controls for retrofits or new construction in medium-sized office buildings and warehouse/storage facilities with high-volume, predictable application. LED-networked and integrated wireless luminaries layer daylight harvesting, occupancy sensing, and high-end trimming control strategies with out-of-the-box functionality and no need for additional manufacturer support or a special server. A one-time one-button commissioning is used to set light fixtures.
  
  - Advanced Energy Communities are district-scale development projects that have aggressive energy goals and include multiple energy systems (energy efficiency, demand response, advanced grid, renewable energy, storage, and electric vehicles.) The Company is looking into program designs that can help meet the needs of these projects.
  
  - Advanced roof top unit controllers that operate a variable frequency drive using advanced economizer and demand-controlled ventilation.
  
  - Offer a rebate to residential customers when they purchase an ENERGY STAR® certified dehumidifier. ENERGY STAR® models use 15-30% less energy than non-ENERGY STAR® models.
- Offer a rebate via upstream program leveraging current partners for variable refrigerant flow heat pump systems that can deliver up to 40% energy savings above minimum codes.
- Continue to evaluate the following Stage 1 prioritized opportunities: heat pump clothes dryers, permanent magnet motors with integrated variable frequency drive, window treatments, ozone laundry, small embedded data centers, and fault detection software.
- Windows were not cost-effective and have been dropped from further consideration.

- **ENERGY STAR® Retail Products Platform Pilot** – Retailers earned $134,630 in incentives during April and May of 2017. Overall engagement and pilot product support by retailers continues to be strong. The pilot product also continues to scale as several sponsors are being added this year. Nationwide Marketing Group began its participation during the second quarter. The group is proposing adding two new measures for 2018 with specific measures and tiers being finalized.

**Demand Response Program**

- **Residential Demand Response** – During the second quarter, the Company posted a 60-Day Notice to create the Residential Demand Response product which combined the Saver’s Switch® product with a new residential smart thermostat offering. As of the end of the second quarter the product has deployed approximately 2,000 switches on customer premises and has approximately 5,000 signup requests awaiting installation. Normally, a substantial portion of new signups do not materialize into installations as, for example, customers change their mind or have ineligible equipment. The residential smart thermostat offering, AC RewardsSM, underwent launch preparations and therefore, there were no participants during the quarter.

- **Building Optimization DR Pilot** – The Company and the third-party implementer continued activities to install the software platform in the customers’ buildings. Significant challenges remain associated with cyber security and building management system integration requirements. Six buildings are expected to be available for demand response testing during third quarter. Up to ten multi-building test events are planned.

- **Critical Peak Pricing** – As of the end of second quarter, there are no participants enrolled in the Critical Peak Pricing pilot product. There are, however, four customers who have communicated their intent to join by the third quarter. This “intent to join” initiated the field services process, with the goal to have these customers fully “dispatchable” by the third quarter.

- **Peak Partner Rewards** – Through the second quarter, the product had enrolled just over 10 MW of new load. Efforts in the second quarter focused on enrolling new customers and installing and commissioning equipment. The product was featured during a session at the 2017 Expo in April. Continued marketing efforts and Account Manager trainings focus on adding additional load for the remainder of 2017.