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 first quarter 2018 (cumulative Jan. 1 – Mar. 31, 2018) product energy and demand savings achieved, product expenditures, and CO\textsubscript{2} and SO\textsubscript{2} emissions avoided. In total, Demand-Side Management ("DSM") electric products have achieved savings of approximately 153 GWh and gas savings of 126,512 Dth in the 2018 calendar year. This represents approximately 36% of the 2018 electric DSM plan’s energy savings target of 429 GWh and 22% of the gas target of 573,139 Dth.

The following section provides product status activities for the first quarter of 2018 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** – Moving into the second quarter of the 2018, the product is not currently on pace to make the 2018 electric or gas savings targets. The focus of second quarter will be to build pipeline for the year; coming up with new and perhaps visiting old ways to attain more engagement in the product, as well as potentially promoting and running campaigns more aggressively for specific measures. A highlight of first quarter is a trade event the product had in late March. Turnout and engagement were a great success. Focus on for second quarter will, as for the remainder for the year, also be geared towards the trade as they know the customers and the market best.

- **Compressed Air Efficiency** – In first quarter, the product appears to be tracking slightly under its electric savings target. However, the pipeline is in a fair position. In second quarter of 2018, the product will continue to focus on building pipeline and on the trade; to gain more engagement and participation, as well as gathering feedback on the product itself. This will be done through trade visits and a possible compressed air challenge later in the year.

- **Computer Efficiency** – The product has only seen upstream participation in the first quarter of 2018. Continuously monitoring the cost effectiveness of the product and the market changes to make necessary changes for the product offering.

- **Cooling** – The product continues to see significant growth in Water Source heat pumps and Air-Cooled chillers. Mini-split heat pumps and AC only units are now a midstream measure. Significant growth is expected in the measure.

- **Custom Efficiency** – The product does not have a strong pipeline of electric projects as it enters into the second quarter. The product does have a very large gas project that is expected to close in the second or third quarter.

- **Data Center Efficiency** – With a slow start to the year, the product is not on track to meet its year-end savings target. While a few projects are on track for completion in 2018, other projects
have been pushed out to 2019. A national advertising campaign to generate awareness of the new construction offering will launch early in the second quarter.

- **Energy Management Systems ("EMS")** – Project completions in the first quarter did not meet the pace needed for full-year targets. However pending project implementations increased, and we expect much better performance though the rest of the year. Ongoing investment in Energy Information System consulting is beginning to yield results, as we have over 2.3 GWh of O&M savings currently being verified. We are forecasting 2018 achievement to be more than 33% greater than the 2017 results. First quarter gas savings were 26% of the full year target.

- **Heating Efficiency** – Through the first quarter, the product pipeline is not strong despite the rebate bonus offered through July 31, 2018. The Company continued the bonus rebate offering from 2017 in order to continue driving participation and savings in 2018. The Company also expected to increase savings with the introduction, during the second quarter, of direct install measures and ozone laundry technology. Campaigns are being developed to promote high efficiency water heaters to specific segments in the second quarter.

- **LED Street Lights** – The LED Street Lights product retrofitted 2,721 units during the first quarter. The rate of installations has slowed significantly relative to the last two years as interest from customers is decreasing.

- **Lighting Efficiency** – The product is on track to exceed its filed targets for the year. The overall costs of LED fixtures have significantly dropped bringing prices and paybacks to an attractive simple investment. In the first quarter, achievement has been highest in the LED Tubes, LED Troffers, and LED Exterior fixture categories. Overall the product remains popular and will continue to be a strong performer in 2018.

- **Lighting – Small Business** – The product is on track to exceed its electric energy savings and natural gas savings targets. First quarter achievement has been highest in the LED Troffer, LED Exterior fixture and LED Tube categories.

- **Motor & Drive Efficiency** – The product is on track to meet and potentially exceed its 2018 savings target. The focus for the second quarter will be to continue to build pipeline and engage both customers and trade. Most of the savings committed and completed this far are from participation and installation of Variable Frequency Drives.

- **Multifamily Buildings** – The Multifamily Buildings product saw a strong start to 2018 and remains on track to achieve its savings targets after the first quarter. There has been a steady pipeline of interest and participation, especially in the first two stages; in March, almost 200 assessments were completed. The product also closed several prescriptive and custom projects in the first quarter. The Company expects to see this pipeline continue to grow, especially with the addition of benchmarking now available as a free add-on to the assessment report.

- **New Construction** – The New Construction product had a strong start to the 2018 year and is currently on track to meet its 2018 savings targets. While the trend of project delays on the construction activity side still impacts overall achievement, the product’s popularity and pipeline remains strong within the overall portfolio.

- **Process Efficiency** – During the first quarter, the product completed 19 projects for 2.5 GWh of savings, and reached agreements for studies at two new participants. Customer re-visits have and study updates are yielding more projects and full year achievement is expected to be greater than its 2017 achievement.

- **Recommissioning** – The product is not expected to achieve its year-end electric or natural gas savings targets. The reduction in completed studies has impacted the implementation pipeline for
the product. A workshop of existing trade partners was held during the first quarter to provide product updates and gather feedback about the current state of the Recommissioning market. A summer promotion for the Small Building Tune-Up offering will launch during the second quarter.

• **Self-Direct** – The product is not on track to meet its year-end savings target in 2018. A few projects are on track for completion during the year, the remainder of the pipeline is scheduled for completion in the coming years. Additional efforts will focus on introducing new projects into the pipeline.

**Residential Program**

• **Energy Efficiency Showerheads** – The product traditionally does not market itself fully until the second or third quarter of the year but still returned modest savings in the first quarter.

• **Energy Feedback Residential** – The product is on track to meet year-end savings targets. The 2017 “rolling” product enrollment process added approximately 53,000 new Home Energy Report ("HER") recipients last year and 2018 participation levels are currently at contracted amount. A Home Energy Squad marketing module was created and included with HERs delivered throughout the first quarter, which resulted in several conversions for that product.

• **ENERGY STAR® New Homes (“ESNH”)** – The ENERGY STAR® New Homes product had lighter than usual participation in January and February but did see an increase in March. Due to this slow start, the product achieved modest savings in the first quarter with the majority of participants building on either the 2012 or 2015 IECC codes. Even with the slow start, however, the Company is still forecasting to achieve year-end targets. The Company continues to provide sales trainings to Builders and Realtors through Building Trust, LLC and will look to expand to other topics throughout 2018.

• **Evaporative Cooling** – The product is on target to meet goals for 2018. The channel manager will be engaged in trainings and meetings with trade partners as warmer weather approaches, bringing increased interest and demand with it. New products have been added to the pre-approved list of qualifying evaporative cooling units.

• **High Efficiency Air Conditioning** – Ductless mini-split heat pumps are off to a strong start, compared to early 2017. Rebate volume is typically much stronger for all measures in warmer-temperature months.

• **Home Energy Squad** – The product experienced a slow start to the year, with 314 customers participating in the first quarter. However, per-household electric savings have been higher than expected. The marketing success experienced by the product at the end of 2017, primarily driven by email campaigns, has taken a step backward due to a reorganization of email marketing operations. Other channels are being explored to pick up the slack, including Partners in Energy communities, outreach to local realtors, Spanish-language outreach, and cross-marketing with the Refrigerator Recycling and School Education Kits products.

• **Home Lighting & Recycling** – The product has had significant achievement in first quarter 2018. Efforts to increase sales during first quarter included TV, radio, social media, bill onserts, updated point of purchase displays and educational opportunities at community events.

• **Home Performance with ENERGY STAR® (“HPwES”)** – The product saw a decrease in participation and savings over its 2017 benchmarks. The Company supported the product with a bonus on all insulation and air-sealing measures during the whole first quarter and did see a good number of qualified participants receive that bonus. The Company is working, included in the recently posted 60-Day Notice, on strategies to increase participation in the product that include streamlined enrollments and easier qualification measures.
• **Insulation & Air Sealing** – The Insulation and Air Sealing product saw a strong first quarter. This success is likely due to the extension of the bonus on all insulation and air sealing measures through the first quarter and it puts the product in a great position for the year. The Company will include the product in a summer cooling bundle to continue to push savings and participation and educate customers on the importance of air sealing and insulating when completing equipment upgrades.

• **Refrigerator & Freezer Recycling** – The product experienced a slow start to the year. However, marketing efforts are scheduled to ramp up at the end of March and into the second quarter and the pace of customer signups is expected to increase as a result. Close involvement with Partners in Energy communities, and cross-marketing with the Home Energy Squad and School Education Kits products are also expected to help increase participation this year while keeping marketing costs low.

• **Residential Heating** – The bonus rebate of $450 for 95% AFUE gas furnaces, offered in the fourth quarter of 2017, was continued in the first quarter of 2018, with very strong results. Electronically Commutated Motors are on target for year-end goal achievement.

• **School Education Kits** – More than 12,000 kits were shipped to participating schools in March, and an additional 7,000 students are signed up to receive their kits in April, bringing total participation for the spring semester to over 19,000. The product is on pace to achieve its annual participation forecast, and will likely exceed its electric and gas savings targets again this year.

• **Water Heating** – The product is on track to meet both electric and natural gas targets, while remaining within the budget. The natural gas tankless measure is seeing a gradual increase in participation over the tank measure, however overall participation is tracking the same as 2017. Updates to Uniform Energy Factor as the efficiency standard for water heating go into effect June 1st; however a significant change in forecasted participation or savings is not expected.

**Low-Income Program**

• **Energy Savings Kits** – The product saw early participation due to a late 2017 direct mail campaign. The 2018 campaign will launch mid-May after the Low-Income Energy Assistance Program season ends April 30th.

• **Multifamily Weatherization** – The product saw a slow start in the first quarter, but a significant pipeline of electric saving projects are expected to be completed by year end. The Company is working with Energy Outreach Colorado on a direct mail campaign targeting affordable housing properties in the second quarter to further build the pipeline.

• **Non-Profit** – The product is on track to meet year end savings targets. Several large electric projects were completed in the first quarter, giving a strong start to the year. A robust pipeline of electric and natural gas projects are projected to be completed by year end.

• **Single-Family Weatherization ("SFWx")** – The Single Family Weatherization product continues to perform well completing projects under the Weatherization Assistance Program and Colorado Affordable Residential Energy program. Starting in January, the Company added evaporative coolers into the product offering and should be ready to start installing these just in time for cooling season after completing quality installation training and testing during the first quarter.

**Indirect Program**
• **Business Education** – In the first quarter of 2018, the Business Education product achieved approximately 7% of the year-end participation target and generated 40 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 first quarter, the Company provided outreach through 4 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** – Marketing efforts in the second of 2018 continue to include social media, direct mail, and e-mail campaigns, as well as an on-site energy audit summer promotion planned. Currently, the product is forecasting to be slightly under target; however, the Company continues to see strong participation numbers for the remainder of 2018 with a steady pipeline due to the benchmarking deadline on June 1st. To keep the momentum following the deadline with the summer promotion that will be marketed to Broomfield and Englewood businesses through Partners in Energy events and communications. This promotion is designed to increase participation through the summer and into fall with a fall promotion as an option if necessary.

• **Consumer Education** – In the first quarter of 2018, Consumer Education achieved approximately 22% of the year-end participation target and generated 772 customer leads and 116 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 19 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 Efficiency Financing** – The Company has launched two territory-wide residential finance offerings through partnerships with LendKey and the Elevations Credit Union. The Boulder Energy Smart program and the Colorado Energy Office are working with the Company to offer the Elevations Credit Union product to customers throughout the state. Several trade partners have signed up to offer these products to customers, but loan volume continues to be low. The Company is working to promote awareness of these products by including financing messaging in marketing efforts for all relevant products and trade partner trainings, and by creating a new Financing section of the Heating, Ventilation, Air Conditioning, and Refrigeration web portal, where customers can easily find which trade partners can offer them the rebate program and financing option they want. On the commercial side, the Company is finalizing the first case study for a commercial lighting project which was completed due to the financing option being available. The “Selling Energy Efficiency - How to Influence Energy Efficiency Projects” workshop has been scheduled for June 7th at the PPA Event Center. The workshop is for commercial trade partners and highlights our financing program including CPACE as a valuable tool in the process. Three additional commercial financing webinars have been scheduled for June including a version 201 which is a more detailed look at financing than we have offered in the past.

• **Home Energy Audit** - Keeping momentum after the first of the year, the Home Energy Audit product saw steady participation through the first quarter. The Company plans to continue marketing and promoting the Audit product throughout the year using various tactics including, emails, multi-product bundle campaigns, and scheduling visits in tandem with the Home Energy Squad to help customers easily participate in both products.

• **Energy Benchmarking** - The Company supports municipalities within its service territory to reach their benchmarking goals. During the first quarter, 252 new participant buildings were added. This brings the total Colorado building count to 2,360.
• **DSM Planning & Administration** – The first quarter saw the Company and a majority of intervenors reach a comprehensive settlement agreement in the 2017 Strategic Issues proceeding. Hearings were also held in March on the settlement agreement. A commission order is expected in the near future.

• **Program Evaluations** – DSM evaluation recommendations were reviewed by product managers during the first quarter with 60-day Notices expected to be posted in the second quarter. Concurrent to finalization of the 2017 evaluations, the 2018 Evaluation kick-off meetings were all completed by mid-January, 2018, approximately 12 weeks earlier than 2017.

• **Measurement & Verification** – The Company’s third-party verification contractor, Nexant, completed random field inspections for prescriptive products for the 2018 M&V year, with no significant variances. The Company’s 2017 savings were also reviewed for accuracy with the approved technical assumptions and deemed savings.

• **Market Research** – In partnership with the Lighting team, a focused research project involving on-site surveys of lighting equipment in Colorado businesses was kicked-off during the first quarter. In addition, work on the survey and sample for the Home Use Survey continued in the first quarter.

• **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. Results were positive with over 90% savings over traditional zonal T8 system. The Company has added this offer through Business New Construction.
  - Developing a 60-Day Notice to enhance the Lighting Efficiency and Small Business Lighting products. Two notable modifications include a new measure, networked lighting controls; and an update to the existing prescriptive stand-alone lighting control rebates to better align with the new networked lighting control measure proposed in this modification request.
  - Finalizing the development of ozone laundry technology which is an add-on retrofit generator for improving the energy and water efficiency of multi-load washers in commercial laundry applications. The principal value of ozone laundry equipment is in the potential gas savings because the need to heat water is significantly reduced or eliminated. The Company plans to post a 60-Day Notice for the measure in the second quarter.
  - Advanced Energy Communities which 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 product designs that can help meet the needs of these projects.
  - Advanced rooftop unit controllers that operate a variable frequency drive using advanced economizer and demand-controlled ventilation.
  - Offering a rebate via upstream product leveraging current partners for variable refrigerant flow heat pump systems that can deliver up to 40 percent energy savings above minimum codes.
  - Create a pilot that tests the use of residential batteries to provide demand response.
  - Create a pilot that deploys energy efficiency and demand response into a specific location in the distribution system in order to defer or avoid traditional distribution investments to meet a need for additional distribution capacity.

• **Thermostat Optimization Pilot** – Nest Seasonal Savings winter optimization program launched to approximately 12,500 existing Nest customers. The Seasonal Savings recruitment and learning
began in early January 2018, resulted in quick adoption, and early results indicated meaningful savings opportunities. Final analysis will be shared when available.

- **ENERGY STAR® Retail Products Platform Pilot** – The pilot paid out $152,060 in incentives in the first quarter of 2018. The pilot continues to grow, with the addition of the retailer Lowe’s starting in April of 2018. To better understand cost-effectiveness of the included measures, the Company has hired a third-party contractor to perform M&V work. Beginning in the first quarter, basic clothes dryers have been removed from the pilot due to the measure being non cost-effective.

**Demand Response Program**

- **Residential Demand Response** – In the first quarter, the company enrolled 367 smart thermostats in the AC Rewards offering. It also installed 785 new Saver’s Switches on customer premises. The first quarter is generally the slowest of the year as Saver’s Switch enrollment and installations are weather dependent. As of the end of the quarter, the Company had about 1,200 Saver’s Switch enrollment pending installation; although, a sizeable percentage of those do not materialize into completed installations.

- **Critical Peak Pricing Pilot** – As of the end of first quarter, there were seven participants enrolled in the Critical Peak Pricing pilot product with the potential of 2.989 MW of controllable load. Several presentations were given to potential customers, with the 3-4 interested in joining the pilot the summer of 2018.

- **Peak Partner Rewards** – As of the end of first quarter, the product has 14 participants and 13.3 MW of load. Efforts in the first quarter continued to focus on enrolling new customers. The Company anticipates adding new customers in 2018 and engaged with interested stakeholders on the Peak Partner Rewards product during an April update meeting. This meeting was a condition of the Company’s 2017/2018 DSM Plan settlement agreement.