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CONFIDENTIAL SETTLEMENT COMMUNICATION PER CRE 408

TO: Public Service Company of Colorado

FROM: Energy Efficiency Business Coalition (EEBC)

DATE: February 29, 2024

SUBJECT: EEBC initial settlement proposal for the 2024-2026 DSM BE Plan, Proceeding No. 23A-0589EG

EEBC's membership represents manufacturers, distributors, implementers, software businesses, and contractors "on the ground" delivering Public Service's DSM Plan to the market. EEBC's settlement proposal is built on its members' long-term relationship with Public Service and its deep understanding of the current and future DSM marketplace in Colorado, as well as national trends. EEBC's proposals address all classes of customers with rebates in areas of the market that deserve the Company's attention.

This memo is organized into Residential, Business, Demand Response, and Financing recommendations. EEBC reserves the right to supplement or amend these positions or policies after discussions with other parties and the Company.

I. RESIDENTIAL

a. Residential HVAC

1. **Eliminate rebates for and promotion of standard and high efficiency Air Source Heat Pump (ASHPs) with only electric resistance backup (i.e., no gas space heating backup).** Consumers will experience very high electricity bills in the winter if electric resistance heating is the backup for an ordinary (i.e., non-cold climate) heat pump. For this reason, this option should not be promoted by Public Service even though it would maximize natural gas savings. Contractors cannot be prevented from promoting and selling this option to consumers, but it should be discouraged rather than encouraged by Public Service.

2. **Increase rebates for and promotion of standard and high efficiency ASHPs with natural gas space heating backup (aka "dual fuel")**. EEBC suggests rebates of $200 for a standard efficiency HP (SEER < 15.2) and $700 for a high efficiency HP (SEER ≥ 15.2), so long as the new systems utilize natural gas as the backup heating source (dual fuel). Other qualification requirements are reasonable. EEBC believes that Public Service can justify higher rebates for dual fuel systems by eliminating incentives for ASHPs with electric resistance backup.

3. **Modify incentives for cold climate heat pumps (ccHPs) to emphasize units that will minimize use of electric resistance backup heating.** The current proposal is to require ccHPs to provide at least 70% of the 47°F-rated capacity when operating at 5°F. However, it is EEBC's contention that only providing 70% of 47°F-rated capacity at 5°F will lead to significant electric resistance backup use and thus high customer electric bills in the coldest months. There are ccHP units available from multiple manufacturers that provide close to 100% of the rated capacity at 47°F when operating at 5°F and these units should be emphasized within this program.

   EEBC recommends a rebate of $1,700 for ccHPs that provide at least 90% of a system's 47°F-rated capacity at 5°F. For ccHPs that provide between 70% and 90% of the 47°F-rated capacity at 5°F, EEBC recommends a rebate of $850, as long as natural gas space heating is used for the backup or supplemental heating in the home. There would be no rebate if the heat pump is rated below 90% of 47°F-rated capacity at 5°F if electric resistance backup is used. This approach will maximize support for ccHPs that are good for consumers and the Beneficial Electrification cause.

4. **Adopt the same energy efficiency requirements for high efficiency ASHPs and cold climate heat pumps.** EEBC does not see a rationale for higher energy efficiency requirements for ccHPs relative to those for high efficiency ASHPs. There

will be less confusion for contractors and others if the efficiency requirements are uniform. EEBC suggests efficiency requirements of 15.2 SEER2, 9.6 EER2, and 7.8HSPF2 for both high efficiency ASHPs and ccHPs.

5. **Shift from a flat incentive amount for unitary HPs (residential or commercial applications) to an incentive amount per ton of cooling capacity.** Energy savings are greater for a 5-ton HP compared to a 2-ton HP. Public Service previously used $/ton incentives for high efficiency HVAC equipment in the commercial sector. EEBC recommends going back to that approach and using it for both residential and commercial applications, with average incentive amounts at the values suggested above.

6. **Increase incentives for multi-split heat pumps that provide a large fraction of total home heat load.** Regarding mini-split heat pumps, the proposed incentives and qualification requirements are fine for single zone units. However, for multi-split HPs that provide at least 80% of a home's heat load, EEBC recommends the same rebates that are adopted for both high efficiency and cold climate systems. Also, define **variable capacity heat pumps** as those where the compressor operates at three or more distinct speeds, or at continuously variable speed.

7. **Regarding heat pump water heater (HPWHs), increase total incentive to $1,000 in order to move the market to a greater degree, at least until sales grow significantly and HPWH costs/prices come down.** Also, consult with stakeholders and consider going to a "full midstream incentive" approach in 2025 if the proposed "hybrid incentive" approach is not working well. In addition, consider implementing a retail program involving in-store buydowns for HPWHs sold directly to consumers by retail stores such as Home Depot.

8. **Adopt new EER requirements for heat pumps prior to the start of 2024 cooling season, as a modification to 2023 DSM Plan**. The new EER requirements in the 2024-26 Plan will allow many more HPs to qualify for rebates compared to EER requirements now in effect. Currently, the majority of ccHPs are not eligible for measure rebates. *Moving to the new EER requirements sooner rather than waiting for implementation of the 2024-26 Plan to begin will result in additional natural gas savings during the 2023 plan implementation period*. It will also start the process of educating and changing the behavior of distributors and contractors sooner. As part of a Settlement Agreement on the 2024-26 DSM/BE plan, **EEBC asks that the 2023 DSM Plan be amended to align EER requirements between the two plans for unitary HPs used in both residential and commercial applications**.

b. Insulation and Air Sealing

1. **Modify the thresholds for program eligibility.** The proposed program requires that existing homes have no more than R-15 in insulation value in the attic to be eligible for a rebate for upgrading to at least R-49. EEBC recommends that this threshold be increased to R-24 (a value previously used by Public Service) which would enable more homes to be eligible for an incentive for upgrading attic insulation. Moving from R-21 or R-24 to R-49 (or greater) is still a large improvement in thermal integrity that is worthy of promoting and incentivizing. Also, modify the requirement on wall insulation to allow homes that have a limited amount of wall insulation (say up to R-5) to qualify, with a requirement of adding at least R-10 of additional wall insulation to qualify for a rebate.

2. **Increase incentive levels for both air sealing and insulation.** The current incentives, capped at $400 for attic insulation, $350 for wall insulation, and $200 for air sealing, are less than what Public Service offered in the past. EEBC recommends increasing the incentives to 40% of installed cost for insulation and 75% of cost for air sealing, with caps of $500 for attic or wall insulation and $400 for air sealing (e.g., total incentive up to $900 for combination of air sealing and attic insulation).

3. **Increase marketing to high energy use households.** Public Service knows which customers are high energy users from its Home Energy Reports/Insights product. EEBC recommends doing targeted marketing of home energy audits, insulation and air sealing incentives, whole home efficiency and other relevant products to these households as they are the households that could benefit the most from energy efficiency upgrades.

4. **Increase communication between Public Service, its program contractors involved in home energy audits, and interested stakeholders (energy auditors, insulation and air sealing contractors, etc.)** EEBC recommends convening meetings twice a year for dialogue among these entities about program design, including soliciting ideas for improving program design, as implementation of Energy Squad, Insulation and Air Sealing Incentives, and Whole Home Efficiency occurs during 2024-26.

c. Residential New Construction

Modify requirements for incentives to align with existing industry programs/standards. EEBC members believe that the proposed program would be better received by home builders if it uses exiting performance standards in all three incentive tiers rather than creating entirely new sets of requirements (Tiers 2 and 3 as proposed). In particular, EEBC recommends the following standards and incentive tiers:

Tier 1- $10,000 – Energy Star NextGen compliance
Tier 2 - $12,000 – DOE ZERHv2 and Energy Star NextGen compliance
Tier 3 - $15,000 – Passive home performance meeting either PHIUS or passive home PSI standards

This approach would reduce complexity for builders and is also more closely tied to federal tax credit requirements.

d. Whole Home Efficiency

In light of the following recommendations, increase the budget and participation targets for whole home efficiency, as well as insulation and air sealing products.

1. **Increase incentive levels for the core Whole Home Efficiency product.** In order to drive participation in the Whole Home Efficiency product, increase the incentives for insulation and air sealing to a maximum of $600/$500 (compared to maximum rebates of $500/$400 in the insulation and air sealing product). Also, add an additional incentive to offset the cost of the home energy audit and technical expert that advises the homeowner. We suggest an additional incentive of $300 to buy down the audit cost for audits performed by a registered program contractor (rather than by the Energy Squad Plus product contractor).

2. **Increase flexibility on program requirements.** As recommended above for the insulation and air sealing product, allow existing homes that have up to R-24 in attic insulation to qualify for participation. Also, modify the requirement on wall insulation to allow homes that have a limited amount of wall insulation to qualify (say up to R-5), with a requirement of adding at least R-10 of additional wall insulation.

3. **In addition to the core program with prescriptive rebates, add a performance option based on whole house energy savings percentage to align with the incentives for whole house retrofit in the IRA under the Hope for Homes provision.** Actively promote the generous federal incentives along with Public Service rebates, with a focus on low and moderate income families (note there are income limits on qualifying for the federal incentives).

e. Multifamily Buildings

Expand focus on getting HPs and HPWHs installed in new MF buildings, and MF buildings that are going through rehab. Educate building owners about the opportunities, including the incentives, that are offered. Consider adding a bonus incentive if both a ccHP and HPWH are installed in tandem, and do some showcase

buildings. Also, consider issuing an RFP to get bulk discounts from HP and HPWH distributors that all building owners could take advantage of.

II. BUSINESS

a. Business HVAC

1. **Align EER and other technical requirements for unitary HPs used in both residential and commercial applications**. Adopt the same requirements recommended above for unitary residential HPs for HPs that are sold for commercial application. Specifically, adopt efficiency requirements of 15.2 SEER2, 9.6 EER2, and 7.8HSPF2 for both high efficiency ASHPs and ccHPs. Further, offer rebates for both ducted and ductless unitary HPs, paralleling the incentives offered to residential customers, and use the midstream program design.

2. **Add prescriptive incentives for variable refrigerant flow (VRF) systems with heat recovery in the size range of 5.4-30 tons.** Current incentives are limited to VRF systems up to 5.4 tons. EEBC requests adding $/ton incentives for larger VRF systems and provide the incentives using the same midstream program design now used for rooftop cooling equipment. Work with the program contractor to develop the assumptions needed for estimating peak load reduction and energy savings. Note: other Colorado utilities including PRPA, Tri-State, and the Colorado Springs Utilities are providing prescriptive incentives for larger VRF systems with heat recovery.

3. **Request that the Commission allow the continuation of incentives for high efficiency rooftop cooling units (RTUs) that are cooling only (not heat pumps) at least in the near term**. In the DSM/BE Strategic Issues decision, the Commission directed Public Service to end incentives for high efficiency cooling equipment used in both the residential and commercial sectors. This makes sense for the residential sector given the wide availability of HPs for residential use. However, cold climate HPs are not yet available in the marketplace for replacing widely used rooftop cooling equipment (RTUs). And because Public Service has stopped providing incentives for high efficiency cooling only RTUs, businesses are installing standard efficiency cooling only RTUs to a greater degree than in the past. And some of the ductless HPs receiving rebates for commercial applications are only being used for cooling and consequently are not providing any natural gas savings.

   For these reasons, EEBC proposes that Public Service and settling parties jointly request a waiver from paragraph 228 of Decision C23-0413. In that paragraph of the Strategic Issues decision, the Commission decided "to terminate incentives designed to spur efficient residential air conditioning and commercial rooftop units in the retrofit, market rate segment of the market by January 1, 2024" and

end incentives on high efficiency RTUs that are cooling only. The waiver would be effective for this DSM Plan, but could be modified if the RTU market develops significantly during the plan period. The waiver would be to drop the restriction for "commercial" buildings. If the waiver is granted, Public Service should restart such incentives in the implementation of the 2024-25 plan, but if possible prior to plan implementation as well. The continuation of these incentives should be revisited annually and ended once high efficiency rooftop HPs become well established in the marketplace and are shown to be cost effective.

b. Business Lighting Efficiency

1. **Maintain bonus incentives from 2022/2023 during implementation of 2024-26 plan.** The bonus incentives have been effective in moving the commercial lighting market, as Public Service noted in its most recent DSM Roundtable presentation. With the bonus incentives, the commercial lighting program is still very cost effective under the mTRC test. Keeping the bonus incentives in place will maintain the market transformation to LED lighting in a wide range of applications and help Public Service meet its electric savings targets during a period when the residential lighting program provides relatively modest savings.

2. **Increase incentives for lighting controls, especially for network controls.** The proposal to increase incentives for lighting controls is welcomed, but EEBC requests even higher incentives in order to move the market. For networked lighting controls in particular, EEBC requests an incentive of $0.75 per watt at least until the technology is well established in the marketplace. Also, add incentives for controls used along with LED lights in indoor agricultural facilities.

3. **Increase rebates for exterior LED fixtures and add incentives for exterior lighting controls such as motion sensors.** While not coincident with system peak at this time, nighttime load should grow in the future as EV and HP penetration grows. Also, nighttime load tends to have higher GHG emissions per kWh than daytime load due to significant and growing solar generation during the day. There is still a lot of potential for cost-effective energy savings for businesses from converting to LED exterior lighting. EEBC requests applying the bonus incentives year-round for exterior lighting, not just interior lighting. And increase the incentive for off peak KW savings in the Custom Efficiency program as well, to $200 per kW.

4. Add incentives for three foot LED tube lights to the midstream incentive program. Three foot LED tubes are not currently included in the program.

c. LED Street Lighting

Add incentives for LED light conversions made by municipalities. The LED street lighting currently applies to Company-owned street lights. However, some municipalities own their own street lights. Incentives (prescriptive rebates) should be offered to these municipalities for replacing older HPS lights with LED lights. These incentives should be equivalent in value to those within the normal lighting program. Also, incentives should be offered for street light control measures such as dimming sensors and controls.

d. New Construction

Integrate analysis and promotion of electrification into the commercial new construction program. The key elements of the program (EDS and EEB) should fully analyze and recommend heat pumps and other electrification technologies where feasible. The program description in the Plan does not state that this is occurring now or will occur.

e. Custom Efficiency

Modify rules for cost effectiveness analysis. Some custom efficiency projects do not qualify for incentives due to high project first cost and thus failure to provide a benefit-cost ratio greater than 1.0. In some cases, this high first cost is caused by aspects of the project that are not associated with energy use, such as for aesthetics associated with decorative light fixtures used in specialized applications. EEBC requests that Public Service clarify the rules for custom efficiency projects so that the reported first cost is only the incremental cost associated with higher energy efficiency, i.e., excluding the portion of the cost unrelated to energy use.

III. DEMAND RESPONSE

The Commission, in its Order in the 2022/23 DSM and BE Strategic Issues docket, directed the Company to develop a suite of programs (pilot and full scale) that make use of AMI meters to achieve greater levels of demand response (see Order in Proceeding No. 22A-0309EG, p. 73). The recommendations below would help to fulfill this directive.

1. Implement a program (either pilot or full scale) that would offer residential customers that already have AMI meters incentives to reduce peak demand on days when the Company has a need for peak reduction. Provide control devices to customers that restrict certain appliances (like dishwashers, clothes washers or clothes dryers) from operating during demand response events using smart plugs, either for free or at a discount. AMI meters would be used to estimate the reduction in peak load achieved, with incentives paid to customers either as a set amount or per kW of achieved peak reduction (pay for performance). Issue an RFP to hire a contractor to implement this program.

2. Conduct an RFP in the first six months after the plan takes effect to solicit proposals from vendors for third party-administered DR offerings that achieve peak demand reduction by residential customers with AMI meters, complementing current and Company-proposed DR offerings. If one or more attractive responses are received, move forward with new pilot or full scale products as part of plan implementation. Prioritize technology agnostic and/or pay for performance approaches. Also, attempt to partner with CEO to access IRA HOMES program co-funding.

IV. FINANCING

Expand any TOB financing offering to include commercial customers. Public Service is developing a tariffed on-bill (TOB) financing product for residential customers. The concept is to use third party capital and administration given that Public Service is not in the consumer financing business. Assuming this proposal moves forward, EEBC proposes allowing business customers to participate up to a project size cap such as $100,000. Many small and medium size businesses lack the capital to move forward with energy efficiency or electrification projects. An attractive project financing option would lead to more businesses adopting EE and BE measures.