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**CSE Comments on Joint Agency Staff Proposal on Building
Decarbonization**

Additional submitted attachment is included below.

August 13, 2019

California Energy Commission
Docket Unit, MS-4
Re: Docket 19-IEPR-06
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Docket No. 19-IEPR-06 – Comments of Center for Sustainable Energy® regarding the Joint Agency Staff Proposal on Building Decarbonization

I. INTRODUCTION

The Center for Sustainable Energy® (CSE) appreciates the opportunity to respond to the Administrative Law Judge’s (ALJ) Ruling Seeking Comments regarding the Staff Proposal titled, “CPUC and CEC Staff Proposal for Building Decarbonization Pilots – Draft” (Staff Proposal).¹ CSE is driven by one simple mission – decarbonize. Building decarbonization is core to achieving our vision of a future with sustainable, equitable, and resilient transportation, buildings, and communities, and we are encouraged by the California Public Utilities Commission’s (CPUC or Commission) and California Energy Commission’s (Energy Commission) joint efforts in the implementation process for Senate Bill (SB) 1477 (Stats. 2018, ch. 378), as outlined below.

Overall, CSE supports the guidance proposed by CPUC and Energy Commission Staff (Staff) for the two new building decarbonization programs, Building Initiative for Low Emissions Development (BUILD) and Technology and Equipment for Clean Heating (TECH). We commend Staff for developing a thoughtful approach for the two pilots, which incorporated input from robust stakeholder engagement. Specifically, we are encouraged by the Staff Proposal’s recommended guidance on clean heating technologies eligible for the TECH program and focus on all-electric new construction within the BUILD program, as well as tying incentives and eligibility requirements to greenhouse gas (GHG) emission reductions potential. Moreover, CSE supports the Staff Proposal’s recommendation to select the Energy Commission to administer BUILD and the selection of a single third-party implementer for the TECH program through a competitive bidding process. In addition to CSE’s general support, we are pleased to provide comments on the Staff Proposal in response to the specific questions outlined in the ALJ Ruling.²

¹ *Administrative Law Judge’s Ruling Seeking Comments on Staff Proposal for Building Decarbonization Pilots*, July 17, 2019.

² *Id.* at 3-5.

II. QUESTION 1: USE OF REVENUE FROM GHG ALLOWANCES FOR FUNDING

CSE finds the Staff Proposal’s approach for using gas corporation revenues from the direct allocation of GHG allowances for funding the BUILD and TECH programs, as directed by SB 1477, is reasonable.³ Building decarbonization efforts provide system-level benefits to ratepayers consistent with the goals of Assembly Bill (AB) 32, and such system-level benefits of GHG emissions reductions are realized by all ratepayers.⁴ As such, it is reasonable for the CPUC to authorize a funding mechanism and specify the portion of the \$50 million to be provided by each gas corporation for the BUILD and TECH programs, in which the intended beneficiaries are statewide rather than limited to corresponding gas corporation ratepayers.

III. QUESTION 3: ANNUAL BUDGETS

CSE recommends that Staff consider removing specific annual budgets to allow for variation in program needs due to ramping and other timing considerations. For example, it may be more beneficial to allocate a larger portion of the budget for the TECH initiative’s “Quick Start” grants in year one than year four, while funding for incentives should increase over time as the programs ramp up and become more widely utilized within their target markets. This could be accomplished by establishing a total funding cap but not directing year-to-year allocations.

While CSE finds the suggestion of the Prize Program for the TECH initiative intriguing, we suggest that this may be better suited as a potential tactic listed within the program parameters at the discretion of the third-party implementer to pursue. CSE also finds that this program would be better supported with maximum budget guidance, rather than a specific annual allocation of \$2 million. As described in the July 30, 2019 Joint Agency Staff Workshop on Building Decarbonization, prize programs are largely defined by the problem statement and desired goal; therefore, the necessary budget is dependent on the specific criteria developed when designing the prize. Accordingly, the selected program implementer should be provided adequate flexibility within the annual budget to reflect the scale of the prize program, which may be limited to addressing a specific market barrier.

Alternatively, CSE recommends the CPUC and Energy Commission explore the applicability of Electric Program Investment Charge (EPIC) funds to this Prize Program. If EPIC funds are a suitable funding source, CSE recommends following a model similar to the California Sustainable Energy Entrepreneur Development (CalSEED) Initiative, in which the Energy Commission could contract with a third-party implementer to administer the Prize Program and related funds.

³ Senate Bill 1477 (Stats. 2018, ch. 378).

⁴ Assembly Bill 32 (Stats. 2006, ch. 488).

IV. QUESTION 4: BUDGET ALLOCATION

CSE supports Staff's proposal to allocate a greater portion of the budget to the TECH program. Electrification is already considered a cost-reduction strategy in new construction,⁵ while installing clean heating technologies in existing homes currently represents a higher incremental cost in most cases, requiring a greater investment. We agree with Staff's reasoning that retrofitting large numbers of existing buildings is necessary for meeting the State's decarbonization goals, and therefore, it is essential to support market development for clean heating technologies, as defined by the Staff Proposal.⁶ This is especially important when considering the intention of the TECH initiative is to develop a scalable market transformation program for meeting such goals. Establishing a robust, statewide market for clean heating technologies in existing buildings will require significant investment; therefore, it is appropriate that the pilot receive sufficient funds to test strategies that would be applicable to a scalable program.

In addition, transforming the market for low-emission space and water heating equipment technologies requires influencing many decisionmakers throughout the supply chain. Influencing this broad and fragmented group of decisionmakers will likely prove to be more difficult than working with a targeted group of new construction professionals for the BUILD program. As such, CSE believes it is appropriate that the TECH program receive a greater proportion of the budget.

V. QUESTION 5: PROGRAM ADMINISTRATOR FOR BUILD

CSE believes it is appropriate for the CPUC to select the Energy Commission as the program administrator for the BUILD program. This administration framework will ensure consistent Building Energy Codes and Standards and maintain a central entity for new construction industry professionals to look to for resources and guidance. This will be especially valuable as the experiences from the BUILD pilot are used to inform the Energy Commission's activities to design and implement Title 24 building codes and Title 20 appliance standards to support further building decarbonization potential within the scope of this proceeding.

VI. QUESTION 6: PROPOSED ELEMENTS OF BUILD

A. Incentives Offered Separately or Collectively for New Subdivision?

While there are several benefits to offering incentives and technical assistance collectively to each new subdivision as opposed to individual new homes, CSE recommends leaving this decision to the discretion of the program implementer as there may be instances when offering

⁵ Cunningham, Ralston, and Woo. 2009. *California's Building Decarbonization Opportunity: Knowing Where We Are and Delivering What We Need*. Building Decarbonization Coalition, page 6.

⁶ CPUC and CEC Staff Proposal for Building Decarbonization Pilots – Draft, page 20.

incentives or technical assistance for an individual new home are justified or contribute additional value to the program's goals. Nevertheless, we suggest the BUILD program parameters include preference for offering incentives or technical assistance at the subdivision level, as such an approach will provide greater opportunities for scalable data collection, including valuable insights as to how low-emission, all-electric technologies can be aggregated for grid management services. In addition, focusing on the subdivision level will help avoid missed opportunities to prevent new natural gas infrastructure as new developments are built entirely all-electric when they otherwise would have required additional gas line connections. This will better allow for a targeted approach to mitigate issues associated with stranded assets.

F. Prioritize Technical Assistance

CSE recommends prioritizing technical assistance work for the low-income component of BUILD as well as within the BUILD program as a whole. As previously noted, electrification is already considered a cost-reduction strategy in new construction, especially when considering avoided costs of gas line connections. For example, a study conducted by Energy+Environmental Economics (E3) estimated an avoided upfront cost of \$6,000 for a gas connection when building all-electric new construction and found lifecycle cost savings of \$130 to \$540 per year,⁷ while a representative from the California Building Industry Association noted builders can save \$2,000 to \$5,000 by not running gas lines.⁸ Additionally, the per-home incentive may be dwarfed by overall project costs – particularly at the developer level, diluting the efficacy of a monetary incentive at driving behavior. As such, providing technical assistance may offer more value to builders looking to develop all-electric new construction projects. For example, CSE has learned through working with developers that technical assistance related to complying with the California Environmental Quality Act (CEQA), such as tools and templates that could be incorporated into planning all-electric developments (e.g., standardized GHG credits), could encourage builders to consider all-electric projects.

VII. QUESTION 9: SELECTING A PROGRAM IMPLEMENTER FOR TECH

CSE supports Staff's proposal to select a third-party implementer for the TECH program through a competitive bidding process. While CSE supports transparency within solicitation processes, we are concerned that the recommended request for proposals (RFP) process does not provide adequate protections of intellectual property and, as a result, may stymie the submission of innovative approaches. Specifically, we are concerned with the process outlined in Section 5.9 of the Staff Proposal in which bidders would serve their proposals to the R.19-01-011 service

⁷ Energy+Environmental Economics (E3). *Residential Building Electrification in California*. April 2019. Page 25.

⁸ National Public Radio. August 5, 2019. "Give Up Your Gas Stove to Save The Planet? Banning Gas is the Next Climate Push." Available at <https://www.npr.org/2019/08/05/745051104/give-up-your-gas-stove-to-save-the-planet-banning-gas-is-the-next-climate-push>.

list to allow Parties to comment on the proposals for up to two weeks. This represents a significant departure from the typical RFP process administered by the CPUC, including the one for the Solar on Multifamily Affordable Housing (SOMAH) program that Staff recommends as a governance model for TECH. Requiring bidders to publicly share their proposed approach and receive comments, including from potential competitors, does not seem to contribute to advancing program objectives and may unnecessarily delay the process. In addition, proposals for administering a program of this size will likely include significant technical detail, and it is unlikely that Parties will be able to provide thoughtful, valuable input on multiple proposals within the two-week timeframe. In addition, the proposed process does not provide bidders with an opportunity to adjust their proposals based on public input, further reducing the likelihood comments will include constructive suggestions but rather may focus on criticisms of competing interests.

VIII. QUESTION 10: ELEMENTS OF TECH PROPOSAL

CSE supports the Commission's multi-strategy approach within the TECH program and encourages the Commission to ensure a continued focus on midstream market facilitation in addition to upstream incentives and partnerships. Similarly, CSE supports the use of "Quick Start" grants to fund and test localized approaches to decarbonization. As local jurisdictions and regional entities throughout the State have already begun to implement innovative and ambitious decarbonization programs and policies, these grants will leverage such efforts and create a streamlined process for translating lessons learned from market transformation strategies within different target markets into a scalable statewide program.

In addition, CSE applauds innovative approaches to program design that incentivize industry participants to reduce cost and increase market share of emerging technologies but is concerned with certain elements of the Prize Program. As described in the Staff Proposal, entities may be awarded prizes based on the number of HVAC systems or heat pump water heaters installed within a certain amount of time, which could create perverse incentives that inadvertently undermine program objectives. Incentivizing rapid, time-bound deployment could encourage substandard installation, undesirable sales tactics, and misrepresentation of potential bill savings, thus undermining customer perception of these emerging technologies. Additionally, if not designed properly, such a program could inadvertently favor larger market actors, rather than encouraging the development of a broad base of well-trained contractors that is key to long-term industry health. If the CPUC and Energy Commission wish to proceed with the Prize Program based on simple targets, CSE encourages consideration of performance metrics that better reflect the emergence of a sustainable industry – for example, performance rewards based on the results of customer satisfaction surveys.

Other examples of prize programs have demonstrated successes in incentivizing breakthroughs, bringing new market actors to a problem for a multidisciplinary approach, and inspiring future engagement, as discussed at the July 30, 2019 Joint Agency Staff Workshop on Building

Decarbonization. While these are important outcomes for building decarbonization as whole, they may be less appropriate for a market transformation pilot in which the desired clean heating technology already exists. However, the Prize Program could provide an avenue to target specific barriers or opportunities that will complement broader market transformation efforts. For example, the Prize Program could reward innovative grid integration strategies for clean heating technologies. Another option could focus on addressing barriers associated with additional building infrastructure costs required for installation of certain technologies, such as electric panel upgrades, through the development of retrofit-ready solutions. In sum, CSE believes the Prize Program has potential to provide additional value to the TECH program but may be more appropriate as an available tactic for the program implementer to propose or a separate program funded through EPIC, as described in Section III of our comments.

IX. QUESTION 11: TECHNOLOGY ELIGIBILITY FOR TECH

In addition to the technology eligibility criteria for the TECH program, outlined in Section 5.5 of the Staff Proposal, CSE recommends considering additional features, such as demand management capability, as a means of future-proofing investments made through the BUILD and TECH programs. California's future carbon-free grid will require significant amounts of flexible load to integrate intermittent renewable energy and provide ancillary services. A focus on deploying grid-interactive technology ensures that investments made today will send the right market signal to industry stakeholders, while socializing the concept of grid-interactive technology with customers. This approach is consistent with CSE's experience implementing other statewide electrification initiatives, such as the Energy Commission's California Electric Vehicle Infrastructure Project (CALeVIP), which requires EV charging equipment be networkable and use an open standard communications protocol.

X. QUESTION 12: SELECTING AN EVALUATOR FOR BUILD AND TECH

CSE encourages the Commission to contract with the independent evaluator at the same time as the program implementer for the TECH program is selected to ensure evaluation is embedded within program design early in the process. As such, CSE is encouraged by the Staff Proposal's recognition of the importance of providing early and regular feedback through the life of the two programs, as well as the formation of a Project Coordination Group to advise the evaluation process. In addition, coordination of data gathering activities among various programs should be strongly encouraged and streamlined. For example, ensuring consistent data is collected from both the building decarbonization activities as well as data gathered through the San Joaquin Valley Disadvantaged Communities Pilot Projects⁹ may help inform program design and measure selection for the broader energy efficiency portfolio.

⁹ D.18-12-015, *Decision Approving San Joaquin Valley Disadvantaged Communities Pilot Projects*, December 13, 2018.

XI. CONCLUSION

CSE appreciates the opportunity to provide these comments regarding the Staff Proposal and looks forward to working collaboratively with the CPUC, Energy Commission, and stakeholders to guide the implementation of the BUILD and TECH programs and continue to craft a policy framework for decarbonization of buildings.

Sincerely,

A handwritten signature in black ink that reads "Sephra A. Ninow". The signature is written in a cursive, flowing style.

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