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Comments of the NRDC-Sierra Club-BayREN on the Workshop on the BUILD Implementation Plan

Attached

Additional submitted attachment is included below.

Comments of the Natural Resources Defense Council (NRDC), Sierra Club and the Bay Area Regional Energy Network (BayREN) on the CEC-CPUC Joint Agency Workshop on the Building Initiative for Low-Emissions Development (BUILD) Implementation Plan

Docket Number 20-DECARB-01

Submitted: June 29, 2020

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The Natural Resources Defense Council (NRDC), Sierra Club, and the Bay Area Regional Energy Network (BayREN) (jointly the "Co-signers") appreciate the opportunity to comment on the design of the Building Initiative for Low-Emissions Development (BUILD) program, which we anticipate will be one of the key tools for transforming the new building market in California towards one where all-electric construction is standard practice.

NRDC is a non-profit membership organization with more than 95,000 California members who share an interest in expanding affordable energy services while reducing the environmental impact of California's energy consumption, and transitioning to a thriving climate-safe society. Sierra Club is a non-profit, member-based California corporation with more than 165,000 members in California and a mission of promoting the responsible use of the earth's ecosystems and resources, including working to speed California's transition to a clean energy future. The Bay Area Regional Energy Network (BayREN) is a collaboration of the nine counties that make up the San Francisco Bay Area.

I. Summary of Comments

- BUILD should maximize flexibility for housing developers, particularly affordable housing providers, through simplified eligibility requirements and incentives that prioritize disconnection from gas infrastructure.

- To ensure the effectiveness of incentives, affordable housing providers should receive 100 percent of their incentive upon approval of their application, and not be required to wait until their project is complete.

- Technical assistance is likely to be the single most important factor in securing the success of the BUILD program by increasing market penetration of all-electric buildings. Technical assistance should be flexible, based on the needs of the affordable housing

providers, and should focus on educating and assisting housing providers, architects, designers, and engineers in acquiring the skills and knowledge needed to build all-electric affordable housing.

- In considering the interaction of funding from different programs, a core principle should be to *encourage* layering of incentives where programs pay for different "services" or attributes, but to avoid paying twice for the exact same outcome. Layering should be coordinated by program administrators so that participants submit a single application for all incentives.

- BUILD should make $7 million in incentives for market rate housing immediately available from the $10 million budgeted for "BUILD Program Costs (Other)." This funding should be structured to prioritize the participation of a large number of builders (not just a few big builders) in order to have the greatest impact with this funding.

- Regarding bill estimates, we recommend adhering to the specific requirements of the statute in a manner that does not add administrative burden for affordable housing providers. The focus should be only on equipment that directly impacts the occupants' bills, and the CEC should provide a "standard pathway" for estimating bill savings that does not require complex calculations on the part of affordable housing providers.

II. Discussion

1. Incentive Structure

Creating an incentive program that is easy to understand and avoids additional burdens for housing developers should be a top priority for the BUILD program. The Co-signers offer the follow comments:

- The most important objective of this program should be to get as many builders, developers, and designers as possible familiar with all-electric buildings. The immediate greenhouse gas (GHG) savings from moving from gas to electric are large compared to slightly more efficient appliances or other variables.

- We support the proposed Guiding Principles and Goals, and in particular agree with the goal to "Enable simple incentive estimation before applying" (Staff presentation, slide 15). To enable planning for all-electric buildings early in the design process and prevent avoidable timeline delays and cost overruns, designers and developers must know in advance roughly what incentive they can expect in order to influence design decisions.

- Do not require additional modeling or analysis beyond what the developer already needs to complete in order to meet Title 24 or apply for Tax Credit Allocation Committee (TCAC) funding. Additional modeling and uncertainty about incentives would add barriers to participation, increase participant and programmatic costs, and undermine the program's goal of increasing all-electric housing in California.

- SoCal Edison's Building Electrification New Construction Pilot "Clean Energy Homes," proposed in the Energy Savings Assistance Program (ESAP) proceeding, should be considered carefully as many of the program elements could beneficially be adopted for BUILD. For example, SCE's proposal for a standardized way to vary incentives based on estimated GHG reduction could be applied to allocation processes for BUILD incentives, avoiding complex calculations on the part of housing developers.

- BUILD should not require prescriptive compliance for any building design feature or appliance. BUILD should allow all-electric projects to meet code however is most cost-effective for that project.

2. Application Process

The application process as proposed will not support the participation of increasingly cash-strapped affordable housing developers. These developers must receive both technical assistance and incentive funding early in their housing development process if BUILD is to have an impact. The Co-signers propose that developers receive 100 percent of the funds upon approval of their application for funding. These funds would come with a claw-back provision in the case that the development is not completed and occupied within a certain number of years.

Affordable housing developers are experienced with meeting deadlines and complex requirements in order to qualify for funding sources, and are well-equipped to track and manage BUILD funds (as well as return them in the case that a project is not built). This early funding would be a significant inducement to try all-electric designs, and would be a much more powerful incentive to participate as compared to waiting until a building is occupied and all the funding needed for the building has already been identified and deployed. See also SoCal Edison's "Clean Energy Homes" pilot, which proposes to provide a financial incentive to developers upfront upon submitting a TCAC application.

3. Technical Assistance

Technical assistance is likely to be the single most important factor in the success of the BUILD program. If done well, technical assistance will prepare affordable housing providers, architects, designers, and engineers with the information and experience required to smoothly

switch *all future developments* to be all-electric, not just the developments funded with BUILD incentives. The Co-signers offer the follow comments:

- We recommend that the technical assistance budget be at least $3 million of the $10 million budgeted for "BUILD Program Costs (Other)" (D.20-03-027, page 31).

- Technical assistance should be bid out to a third party with the relevant expertise and experience working with the affordable housing industry and its complex financial structures and funding programs. This contract should include both the outreach and technical components, so that these can be closely coordinated. The outreach and technical assistance team should also be able to provide input on the CEC's implementation plan especially as it relates to coordinating with key affordable housing agency staff for seamless implementation of the program.

- Technical assistance should focus on educating and assisting housing providers, architects, designers, and engineers in acquiring the skills and knowledge needed to build all-electric affordable housing; a simple-to-access program design will enable a focus on project support and education rather than program paperwork.

- Technical assistance should be flexible, based on the needs of the affordable housing developer. We recommend that all applicants receive "basic" technical assistance, including plan review and guidance to the developer and design team, and assistance with code compliance issues. In addition, as part of the technical assistance budget, each affordable housing provider should be offered specialized technical assistance, not to exceed $50,000 per affordable housing provider, where the housing provider can choose what services would best support their transition to all-electric housing. The options should include:

    - **A consultant to manage and coordinate the project** with expertise navigating different requirements, including those of Title 24, TCAC housing tax credits, and solar procurement, as well as closely coordinating with the local jurisdiction, the CEC, and the building's design team to ensure a smooth process;

    - **An in-depth pre-design technical consult** with the design team to choose equipment, size the systems, identify vendors, and work on pricing; and

    - **A post-installation commissioning of the building systems** to ensure they are operating optimally prior to resident occupancy, especially as electric hot water systems can be complex and many local engineers and contractors working with the affordable housing community may have little to no experience with these systems.

- In addition, the technical assistance provider should offer group training sessions for architects, designers, and engineers that work on affordable housing projects to improve the competency of these professionals with all-electric building design; free training sessions and other materials should be posted online to complement the direct one-on-one assistance.

4. Funding from Related Programs

The energy and climate-related funding landscape is quite complex in California, and the BUILD program should aim to anticipate and identify solutions for any overlapping or complementary incentives, and assist participants in navigating the various programs. A core principle should be to *encourage* layering of incentives where programs pay for different "services" or attributes, but to avoid paying twice for the exact same outcome. For example, if BUILD is paying for all-electric affordable housing that meets code and another program is paying for load-shifting heat pump water heaters, these programs could be combined.

The CEC staff and technical assistance provider will have to get ahead of all possible incentive conflicts and help participants navigate their options. Where possible, a housing provider should not have to submit multiple applications for the same project. If funds are going to be "layered" this work should be done behind the scenes to avoid unnecessary administrative work for the builder. For example, if a project is eligible for both BUILD and the new California Advanced Homes Program (CAHP), the builder should submit a single application, and funds can be commingled as needed by the relevant program administrators.

5. Eligible Applicants

While the Co-signers agree that most of the BUILD funding should be dedicated to affordable housing, the CEC should not delay launching a market rate incentive program as well. It appears the CEC is proposing to not offer *any* incentives to market rate builders for the first two years (Staff presentation, slide 25). This would be extremely detrimental to the timely development of this market. There is a critical need to offer incentives to encourage market rate builders to gain experience with all-electric homes; this experience will be vital to evolving the building code to further support all-electric housing.

We recommend making $7 million of the $10 million in the budget for "BUILD Program Costs (Other)" (D.20-03-027, page 31) immediately available for market rate housing. This funding should be structured to prioritize the participation of a larger number of builders (not just a few big builders) in order to have the greatest impact with this funding. We recommend pre-set incentives of $2,000 to $3,000 per unit, and to ensure wide builder experience and to maximize market penetration, each home builder should be limited to incentives for 100 units. The

experiences and electricity use data from these homes will be important for informing and transforming the new home market.

6. Eligible Technologies

BUILD should avoid over-complicating the eligible technologies; if a building has no gas connection or piping and meets Title 24, it should qualify. Additional kicker incentives can be given on top of a base incentive for specific technologies (e.g. appliances with low-GWP refrigerant).

If the CEC pursues a detailed list of eligible technologies, any Federally-approved all-electric equipment should be eligible, including equipment types which may not receive residential efficiency ratings (such as HSPF, SEER, or UEF). Examples include highly efficient unitary heating/cooling heat pumps rated in COP and EER (per DOE rules these units do not receive a HSPF, SEER, or UEF), water-source heat pumps, and commercially-sized equipment that exceed the capacity sizes or other thresholds for receiving a residential efficiency rating but have important applications in multifamily buildings. Central heat pump water heating is a critical technology for affordable housing and should be included as an eligible technology.

Regarding "Evaluating New Technologies" (Staff presentation, slide 32), it is essential that there be a flexible process to evaluate and encourage new technologies that does not require years of field data, while including appropriate safeguards to ensure actual performance. Rapid evaluation of new technologies for BUILD eligibility is critical to encourage innovation in low-GHG technologies and help the state achieve its building decarbonization goals in the most cost-effective manner.

7. Utility Bill Estimates

While it is important to keep bills as low as possible, especially for low-income customers, the CEC must also avoid overcomplicating this issue and creating significant barriers to participation. Projecting bills for an all-electric building that has yet to be built or occupied, as compared to an alternative building using gas, is inherently challenging and uncertain. The Co-signers recommend adhering to the specific requirements of the statute in a manner that does not burden affordable housing providers.

The only statutory direction given is the following: "Ensure that projects funded with moneys reserved pursuant to subdivision (c) do not result in higher utility bills for building occupants." (PUC § 921.1.(d)(3)). Subdivision (c) refers to the funding reserved for affordable housing, thus the bill analysis only applies to the affordable housing portion of the BUILD funds. The statutory language also focuses explicitly on the bills for the **occupants**, not the owners of the building, which makes sense given the economic vulnerability of these occupants. This focus

on occupant savings must be reflected in implementation of BUILD. Based on the statute, we recommend the following for assessing whether and how to conduct a bill analysis for BUILD affordable housing program applicants:

a) **Exclude buildings with central water heating from a bill analysis requirement:** Many affordable housing developers currently build all-electric except for water heating. When water heating is a *central* system the energy cost is paid for by the owner, not the occupants, and therefore moving to all-electric water heating does not impact occupant bills.

b) **Provide a "Standard Pathway" bill estimate:** For buildings not covered by a), the BUILD program staff should provide bill estimate calculations by climate zone and utility. If a project meets those criteria, it meets the requirement mandating stable or reduced utility bills for occupants.

c) **Allow an Alternative:** If a project does not meet a) or b) the affordable housing provider should have the option to demonstrate stable or reduced utility costs via the California Utility Allowance Calculator (CUAC) or through another method that they may propose.

III. Conclusion

The Co-signers appreciate the opportunity to provide comments on the Building Initiative for Low-Emissions Development (BUILD) Implementation Plan.

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