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Comments of Environmental Defense Fund on Staff Proposal

Additional submitted attachment is included below.

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Regarding
Building Decarbonization.

Rulemaking 19-01-011
(Filed January 31, 2019)

**OPENING COMMENTS OF ENVIRONMENTAL DEFENSE FUND ON
STAFF PROPOSAL FOR BUILDING DECARBONIZATION PILOTS**

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OPENING COMMENTS OF ENVIRONMENTAL DEFENSE FUND ON STAFF PROPOSAL FOR BUILDING DECARBONIZATION PILOTS

General Comments on Staff Proposal

Environmental Defense Fund (EDF) thanks the Commission for the opportunity to provide comments on this staff proposal. EDF thinks that there is a lot of merit to this proposal and we urge the Commission to take prompt action to “get started” on the pilots.

Overall, EDF recognizes the Commission’s wisdom to make these pilots part of a new Rulemaking and not an extension to the Energy Efficiency proceeding. While there are several overlapping goals and objectives, decarbonizing a building is ultimately not the same task as retrofitting it to be energy efficient. For the most part, the Staff Proposal does an admirable job of establishing distinct objectives. EDF does observe that there are a few instances where the Staff Proposal may not have found the right balance and overly-relied upon the way “things were done” in Energy Efficiency that may not be appropriate for these pilots. As a general theme, EDF encourages the Commission to take a fresh look whenever possible.

While not explicitly stated, it appears to EDF that the primary strategy taken in the Staff Proposal to decarbonize a building is to electrify it. EDF encourages the Commission to reconsider this assumption. A building does not need to be all-electric to be decarbonized, nor can an all-electric building be considered to be decarbonized. While it is true that Senate Bill 100 requires the California electric grid to be carbon neutral by 2045, we do not today have a carbon-neutral grid. The Staff Proposal does not adequately address strategies to decarbonize an already all-electric building. Such strategies may include enrolling that building in a “green tariff” (offered by several Load Serving Entities) to bring it from all-electric to a carbon-neutral electric building. This comment aligns with the staff proposal’s commentary on page 39 that “is not expected to completely decarbonize every home in the state, it should put California’s existing buildings on a path to complete decarbonization by 2045.” EDF thinks this may be the inevitable outcome, but encourages bolder actions during this pilot phase. While the Staff Proposal does include some funding to marketing, education and outreach, there is insufficient recognition of the differences between all-electric buildings and decarbonized buildings. EDF encourages the Commission to adopt outreach strategies in line with the spirit of Senate Bill 1477 and the Staff

Proposal to decarbonize buildings more quickly. EDF thinks that this Rulemaking could establish an interim goal from participation in these pilots that all participating buildings can be decarbonized.

EDF notes that throughout the Staff Proposal, and as evidenced in the quotation above, there is an informal use of vocabulary of “homes” as a proxy for buildings. EDF encourages the Commission to set clear decarbonization pilot programs and associated goals for all buildings, including residential, mixed-use, commercial and industrial. Before adopting the pilots, EDF thinks that the Commission should carefully consider the language in the Staff Proposal to clearly delineate between residential and non-residential buildings.

EDF also recognizes that there may be viable and cost-effective strategies to decarbonize a building that do not include electrification. It may very well be that electrification is the most cost-effective strategy for most building types, but certainly not all. EDF encourages the Commission to consider how non-electrification strategies to decarbonize a building can be included in the pilots it authorizes.

EDF recognizes that certain buildings cannot electrify its end uses; these buildings, mostly heavy energy users in the industrial sector, require gas. These buildings should not be left behind in the pilots, and there should be strong consideration of transitioning these buildings from fossil gas to a sustainable carbon neutral fuel substitute, such as biomethane or hydrogen. EDF recognizes that these alternates may be cost-prohibitive for many applications, so a decarbonization pilot should target buildings where end uses where electrification cannot occur. EDF further encourages the Commission to provide some guidance of when the best pathway is to electrify a building and when the best pathway is to use a non-fossil gas to displace carbon.

As mentioned in the Staff Proposal, there may be some value to “target a geographical area” as described in Section 5.2.5 of the Staff Proposal. Such strategic electrification of existing dual-fuel homes to help promote decarbonization may be an appropriate policy outcome. However, the Staff Proposal does not go far enough to provide a cost-evaluation framework that considers the costs of the legacy gas pipeline infrastructure. EDF contends that understanding the remaining book value of legacy gas assets in the ground may help target where electrification should occur. EDF thinks this type of targeting based on age and remaining book value of the asset will lead to a much larger benefit than the “areas of natural gas infrastructure failures,

particularly the area around Aliso Canyon in Southern California” as described on page 43 of the Staff Proposal. In addition, EDF has been a long-time advocate in the reduction of “lost and unaccounted for gas” from pipeline leaks. Using the best practices established in Rulemaking 15-01-008 to help target high methane leak areas as a place to concentrate electrification and decarbonization efforts may be a more appropriate policy approach and in the spirit of the Staff Proposal. As EDF said in its opening Comments in response to the Order Instituting Rulemaking, such targeted geographical areas should be done holistically.

EDF notes on page 31 of the Staff Proposal the suggestion in section 4.3.4 that the Commission staff confer with the staff of the California Energy Commission on a monthly basis. EDF encourages this type of collaboration. However, EDF does not believe that the Commission needs to order deliberative consultation and that this is overly prescriptive for pilot programs. There is a long history of the two agencies working well together. If collaboration were to be “ordered” by the Commission, than it would no longer be “informal” and this is not an appropriate use of the Commission’s authority.

With these initial comments in mind, EDF responds to the questions in Section 2.1¹ of the Ruling below.

Preliminary Responses to Questions Posed in ALJ Rizzo’s Ruling:

1. Is staff’s proposed approach for using gas corporation revenue from the direct allocation of GHG allowances for funding the BUILD program and TECH program reasonable?

EDF agrees with the basic outlines of this approach. EDF does recognize that all-electric customers may not have access to the Greenhouse Gas Balancing Account described on page 20 of the Staff Proposal. The Commission may wish to identify a source of funds for the BUILD/TECH programs that will enable all electric homes to decarbonize as part of the pilot process. This second source of funds should be provide a pro-rata share of funding based on building profile and participation. EDF does not want to inadvertently exclude all-electric buildings from participating in these pilot programs.

¹ EDF notes that the Ruling paragraph #2 indicates that parties should respond to the questions posed in Section 3.1, but that the questions are included in Section 2.1 and there is no Section 3.1 of the Ruling. EDF assumes this is a typographical error.

2. Does staff's proposal appropriately and adequately prescribe how to prioritize among different authorized uses of the directly allocated GHG emission allowance revenue described in Question 1?

EDF reserves the right to file reply comments on this question.

3. Are the annual budgets proposed for the BUILD and TECH program reasonable? Why or why not?

Respectfully, EDF disagrees with the annual budgets included in the Staff Proposal for a variety of reasons. On page 19 of the Staff Proposal, there is a proposed budget that exceeds the statutorily prescribed budget of \$50 million per year. The \$2 million dollar set aside for Evaluation brings the budget to exceed the \$50 million annual mandate. At minimum, the annual budget needs to be adjusted downwards to accommodate a budget for Evaluation. EDF suggests that the proposed 4% set-aside (or \$2 million dollars) is a carry-over from the program budget needs of Energy Efficiency. A 4% budget is simply too high for evaluation for these pilot programs. EDF recommends that \$100,000 per year per program (\$200,000 per year x 4 years = \$800,000) is more appropriate. As recognized in the Staff Proposal on page 27, EDF does not think that the same rigor of Evaluation as used in Energy Efficiency is appropriate and the 4% carryover as a "copy and paste" does not work. EDF believes that a new set of criteria and budget should exist. For example, the Commission is not bound by cost effectiveness tests, attribution of participation to specific programs, or database updates in the same way as it is in Energy Efficiency. Given the overall budget constraint, EDF recommends the evaluation budget should be no more than \$800,000.

Specific to the BUILD program, it is unclear to EDF why the California Energy Commission would require \$2 million dollar annual budget allocation. As a state agency, the California Energy Commission has access to fully funded staff to do its work. If the California Energy Commission needs additional limited term resources to augment its already strong capacity, it can go through the normal Budget Change Proposal process. The Staff Proposal makes inadequate justification as to why the California Energy Commission should receive such a large percentage of the overall budget. This \$2 million dollar allocation should be re-prioritized to low-income and the unfunded evaluation

purposes. (We note that if the Commission elects to have another entity other than the California Energy Commission be the administrator of the program, then 5% of the overall program seems to be more appropriate. Accordingly, of the \$20 million dollar budget proposed for the BUILD program, EDF recommends no more than \$1 million annually if an entity other than the California Energy Commission is selected).

Regarding the TECH program, EDF makes the following suggestions. First, EDF suggests that there should be a specific budget set-aside for low-income buildings. Since the TECH program primarily deals with retrofits, this should be a predominant share of the \$23 million budget proposal.

EDF is opposed to the \$2 million set aside for a prize program. EDF does not think this is an appropriate expenditure and that budget be re-allocated to other parts of the TECH program, including the aforementioned missing Evaluation budget. EDF agrees with the general allocation of \$5 million set aside for “quick start” grants, although we believe that there should be an emphasis within this pot of money as well dedicated to low-income programs. Last, since it is highly probable that a non-State agency will be selected for the TECH program administration, a budget allocation of approximately 5% (\$1.5 million) should be allocated accordingly.

4. Is the proposed budget allocation of 40 percent of the budget for the BUILD program and 60 percent for the TECH program appropriate? Why or why not?

EDF believes that the 40% BUILD and 60% TECH program is an appropriate allocation of overall budget. As noted above, both budgets should equally (50/50) fund Evaluation efforts. If the Commission were to adjust the allocation of the budget to something other than the 40/60 split, then EDF would recommend a 50% even allocation could also be appropriate.

5. Is it appropriate for the CPUC to select the CEC as the administrator of the BUILD program? Why or why not?

EDF believes that the California Energy Commission could be a viable administrator for the BUILD program and that the pilots could be accelerated by leveraging their vast expertise. The selection of the California Energy Commission could

also allow for greater transition from the findings of these pilots into future work, which would benefit all building stock.

6. Are the proposed elements of the BUILD program reasonable and sufficiently comprehensive? If not, what elements should be removed, changed, or added? Specific questions to consider:

a. Given that production builders (e.g., builders who build houses, townhouses, condos, and rental properties on land owned by a building firm) construct the majority of new homes in California, should BUILD incentives be offered separately for each new home or collectively for each new subdivision?

EDF believes that incentives should be allocated by subdivision when appropriate. Developers finance buildings themselves as a bundle, so the incentives and programs should take the same approach to reduce transaction costs for the participating developer. EDF believes that such bundling should be a preferred approach since there is merit to pilot of this approach will deliver the best “bang for the buck” amongst the developer community.

b. Should BUILD incentives be offered on a first-come, first-served basis across the state, or should BUILD incentives be limited to the regions of the state where the largest GHG emission reduction potentials exist? Or should it be based on some other standard? Please explain your rationale.

EDF believes that the Commission should direct the BUILD program to be targeted using legacy gas infrastructure (including avoiding new pipeline upgrades) as a key criterion when selecting pilot locations. This will receive more societal benefit than a simple “first come first serve” approach. While there is inherent fairness in “first come, first serve” EDF is concerned that the Commission may not achieve all of the learning objectives identified in the Staff Proposal using this method. With limited funds available, EDF believes there should be a more holistic approach to project selection for incentives. Clear rules and the ability to adapt will also be needed.

- c. Should each developer or builder have a limit on the total share of incentive dollars received per year, or overall?

EDF does not believe that there should be a participation limit on specific developers at this time. Given that there are only four years to these pilots, these adjustments can be made as part of the overall program evaluation at the end of the pilot period. While EDF wants to ensure diversity of access, it is also helpful to learn why developers are eager to participate. The participation rate and reasons for participating should be key questions during the Evaluation process and artificially limiting them will diminish the real world value of these data.

- d. What is the appropriate incentive level for the BUILD program? i. Should the level of BUILD incentives be equivalent to or greater than the current social cost of carbon (e.g. \$48/Tonne CO₂e)?²

EDF does not offer a specific amount at this time, but does suggest that a more holistic approach should be considered, including the cost of legacy gas investments and displacement of new pipeline expansions.

- e. Should BUILD incentives target the qualifying residential equipment and/or systems that have the highest costs?

EDF suggests that BUILD incentives should focus on where the most adoption can occur, not necessarily highest cost buy down.

- f. For the low-income component of BUILD, should funding levels be prioritized for the technical assistance work or for the incentive budget? Why or why not?

The low-income component could prioritize, but not limit, funding for technical assistance. However, much new low-income housing stock are set asides in the form of deed restrictions as part of a larger development and do not need this level of technical assistance.

² EDF notes that this question is two-part but that the “i “ was not formatted separately, so we are responding to the question as drafted in the Ruling.

EDF also encourages the Commission to consider how to apply the BUILD program for low income buildings that are not residential applications.

- g. Is the funding for the low-income component of BUILD at 30 percent of total budget appropriate? Why or why not?

EDF concurs that the 30% carve out is appropriate. EDF also believes that the program administrator should not be allowed to fund lower than this 30%, but that the Commission should allow for an increase of up to 50% without an additional Commission decision.

7. Which elements of the BUILD program should be established by the Commission in a decision, and which should the BUILD program administrator have the flexibility to modify in implementation, with oversight by Commission staff?

EDF believes that certain delegation to Commission Staff is appropriate. However, EDF does not think it is appropriate to allow fund shifting away from low-income programs without a Commission decision. Therefore, re-assignment of the low-income budget should not be delegated to Commission Staff. As noted in the response to the question above, EDF does agree that an increase of funding to the low income programs of up to 50% of total program budget could be delegated to Commission staff.

8. Comment on whether the Staff Proposal's analysis and recommendations for the BUILD program's technology eligibility criteria, process for evaluating new technologies, guidelines and evaluation metrics, and criteria for scoring and selecting projects are reasonable.

EDF reserves the right to file reply comments to this question.

9. Is the proposed mechanism for selecting a program administrator for the TECH program reasonable?

EDF reserves the right to file reply comments on this question.

10. Are the proposed elements for the TECH program appropriate? Are there any elements that should be removed, changed, or added prior to initiating the solicitation process?

Specific questions to consider:

- a. The staff proposal describes a four-pronged effort which includes an upstream strategy, a mid-stream strategy, a grants program, and a prize program. Is this four-pronged approach appropriate? Why or why not?

EDF whole heartedly agrees with the emphasis on “upstream” programs. EDF believes that concentrating on upstream availability will generate the most leverage of new products to be brought into California. EDF believes that particular emphasis should be placed on water heating and work with manufacturers for water heating in all building types.

As part of the midstream programs, EDF concurs with the overall recommendations in the Staff Proposal. EDF believes that a certain amount of contractor outreach and training is required. EDF believes that the midstream efforts could be informed by “green button” use of data; part of the TECH efforts should be on training both customers and contractors on how to use this data to indicate how the building could be decarbonized.

EDF is skeptical about the premise that the “quick start” grants present, and that this part of the program can probably be achieved through other already available demonstration programs, such as those funded by Electric Program Investment Charge (EPIC). However, given the size and scope of this problem, EDF does not contest allocating up to \$5 million for this activity. EDF believes that part of this budget allocation should be used to incent replacement of eligible equipment before the end of useful life/burnout so that large inefficient devices are not waiting until the equipment “dies” before it is replaced.

EDF objects to the use of a “prize program” as part of the TECH program. It is not clear to EDF what the prize could accomplish for this market that could not be achieved by using upstream/midstream and grants. EDF applauds the Commission Staff for trying to be innovative, but EDF believes that this is a solution in search of a problem. If the Commission did want to use a “prize” it should focus on its ultimate

goal, which is decarbonizing buildings. As described throughout these Comments, EDF is concerned that not all building stocks and end-uses are contemplated. It may be more appropriate to use a prize to determine new ways of Carbon Capture Usage and Storage, or ways to promote higher blends of biomethane/hydrogen within the existing pipelines. These are strategies that could apply to the buildings that are not addressed in the Staff Proposal.

Unfortunately, the Staff Proposal does not appropriately define the parameters of a prize, the objectives or how it is a reasonable use of ratepayer funds. There is no clear public participation role in both prize identification or selection. EDF also notes that the examples given in the Staff Proposal were for when technologies were not already “market ready.” EDF contends that the primary benefits of a prize (as described during the informative Workshop on July 30, 2019) does not apply in this circumstance. EDF does not see a need for a prize – most of the eligible equipment under TECH is market ready and a “prize” is not needed to deploy them. The Commission should take these funds and use them to help buy down the cost of contractor training, installation soft costs, or other barriers to entry, or funding the needed Evaluation part of the budget.

Last, EDF is concerned that the Commission could be straying too far from its Legal authority within Senate Bill 1477 to issue a prize. Straying too far from legislation is unnecessarily risky for the TECH program. In 2008, the Commission tried to establish the California Institute of Climate Solutions. This effort was ultimately vacated in Decision 08-11-060, mostly because the legislature had not specifically authorized it and it was perceived that the Commission had strayed too far from its authority. EDF believes that the TECH program is too important to be placed into legal jeopardy and uncertainty for a prize, particularly when the objectives for the prize are not well-defined in the Staff Proposal. For these reasons, EDF recommends that the Commission not adopt a prize at this time and re-allocate the proposed budgets to other parts of the program, including the unfunded Evaluation.

11. Comment on whether the Staff Proposal’s analysis and recommendations for the TECH program’s technology eligibility criteria, process for evaluating new technologies,

guidelines and evaluation metrics, and criteria for scoring and selecting projects are reasonable.

EDF believes that additional emphasis needs to be placed on water heating technologies, which are market ready, require very little electrical panel work for conversion from gas fired, has little-to-no impact on end use and can be made 'grid ready' to help with renewable integration efforts.

12. Is the proposed process for selecting an evaluator for the BUILD and TECH programs appropriate? Why or why not?

The process seems to be appropriate. On page 43 of the Staff Proposal, it says that evaluators will be responsible for “the tracking and reporting of program performance metrics, providing early feedback evaluation results and recommendations... and facilitating communications between the program implementer, CPUC, Energy Commission and stakeholders.” EDF agrees with this overall approach. However, we note that a different type of consultation is appropriate for non-market participant stakeholders versus equipment manufacturers and stakeholders that have a market interest. The Staff Proposal is silent on this point. EDF recommends that the evaluators be given guidance on how it handles non-market participants in sharing information.

13. Other Questions:

- a. a. The staff proposal includes a list of GHG metrics and sub-metrics to measure the success of the BUILD and TECH programs. Are these metrics appropriate? Why or why not? Are there any additional or different metrics that should be considered? Why or why not?

EDF encourages the Commission to not use “false precision” with these metrics. EDF does not object to any of the particular metrics outlined, but does encourage a higher level approach to determine program efficacy. In particular, EDF believes that surveys of contractors pre/post outreach and design specification changes pre/post upstream program engagement is critical for the TECH programs.

14. Transcripts: the upcoming July 30, 2019 workshop will be transcribed. Therefore, parties are encouraged to comment on the discussion transcribed at the workshop.

EDF participated on the record several times at the July 30, 2019 workshop. EDF has yet to receive a transcript of the July 30, 2019 workshop so we cannot provide any comments on the transcript. EDF reserves the right to submit comments on the transcript. We suggest that the Commission Staff issue a notice of availability to the Service List once the transcript is available and that the assigned Administrative Law Judge provide guidance about how and when parties should comply with this part of the Ruling.

EDF thanks the Commission for the opportunity to reply to this Staff Proposal and we look forward to next steps.

Respectfully Submitted on August 13, 2019,

/s Michael Colvin

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