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NRDC Earthjustice Sierra Club RMI Comments on Additions and Alterations in 2022 Code

Additional submitted attachment is included below.

Dear Commissioner McAllister and Energy Commission Staff:

On behalf of the Natural Resources Defense Council (NRDC), Earthjustice, Sierra Club, and Rocky Mountain Institute, advocating for affordable and equitable decarbonization and clean air policies in buildings to help mitigate the climate crisis, we respectfully submit the following comments in response to the California Energy Commission's proposed measures for residential additions and alterations in the 2022 Title 24 building energy standards presented during the September 1, 2020 workshop.

We appreciate the CEC's leadership to date to remove barriers to decarbonization in the building energy code and the measures proposed during the September 1st workshop to promote energy efficiency in additions and alterations. While the proposed measures make an important first step towards improving the efficiency of altered and added components in existing residential buildings, they fall short of the changes needed to meet California's decarbonization goals by not pursuing all cost-effective decarbonization opportunities.

According to the Codes and Standards Enhancement (CASE) report submitted by the Investor Owned Utilities (IOUs), by 2023 when the 2022 code under consideration goes into effect there will be over 13 million existing residential dwelling units in California, 60 percent of which were built before California's energy code was first enacted in 1978. This is compared to the 125,000 new dwelling units estimated to be constructed per year under the new code. Even if every single one of those new units was zero emissions, California could not meet its AB 3232 emissions reductions goals without significant emissions reductions in existing buildings. While the AB 3232 assessment of how to achieve 40 percent emissions reduction in buildings by 2030 is still in development, preliminary findings make it crystal clear that we must seize all cost-effective opportunities to decarbonize existing homes when they are undergoing major renovations and alterations through its updates to the 2022 Title 24 standards.

Alterations and additions are an important opportunity to upgrade existing buildings cost-effectively. By leveraging other work that is going to happen anyway, and in some cases

heating and hot water system replacements, they are an opportunity to install more efficient and lower emissions equipment in a manner that doesn't increase lifecycle costs.

The measures proposed are an important first step towards ensuring that additions and alterations meet minimum efficiency requirements. They would bring requirements for roofs, attics, and ductwork closer to, or in some cases to new construction requirements in additions and alterations, achieving significant energy savings due to the number of projects that would be affected by these measures. The proposed measures would also require heat pump space and water heating when replacing electric resistance equipment under certain circumstances, which will both improve efficiency in these homes and reduce consumer utility bills.

While these measures do a good job at ensuring components are brought to near-code, they miss key opportunities for cost-effective decarbonization. We recommend that the CEC adds the following requirements that would ensure significant emissions reductions during major addition and renovation projects:

- **A percentage of square footage altered trigger (~75%) that would require full compliance with new construction requirements.** This would hold gut renovations, that just leave the chimney, or a few walls standing, to the same standard as new construction, as they effectively are. Code requirements shouldn't be the same when you alter just one wall as when you alter everything but one wall.
- **Required additional efficiency measures for projects over a certain size threshold** (e.g. an addition over a certain square footage threshold, a project that alters more than 25% of a building's square footage, or a project that alters kitchen or bathroom plumbing layout). An example of this is the additional efficiency measures required by the city of Portland, Oregon for medium and large additions.¹ Projects over a certain size threshold are required to choose an additional efficiency measure from a list of measures. The CEC should adopt something similar, including electrification measures, which will couple these emissions reduction measures with large discretionary projects and give a flexible

¹ <https://www.portlandoregon.gov/bds/article/213933>

list of options so that a homeowner or builder can choose the best option for a given home's circumstances.

Recent heat storms and wildfires bring the impacts of climate change home to Californians. To make progress at the pace and scale required by the climate crisis, we cannot miss cost-effective opportunities to decarbonize buildings. Renovations are one of the most cost-effective opportunities to electrify to help achieve this goal in a timely and affordable manner. It is important for the code to harness these opportunities when major renovation and addition projects occur and avoid leaving home owners with gas infrastructure that will get unaffordable or stranded before the end of its useful life. We therefore urge the CEC to both finalize the code measures proposed and to add additional requirements for large projects as outlined above.

Sincerely,

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