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Comment Received From: Pierre Delforge
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NRDC Comments on Compliance Manuals

Additional submitted attachment is included below.

Dear Commissioner McAllister and Energy Commission Staff:

January 7, 2022

Re. Comments on the Draft 2022 Energy Code Multifamily and Nonresidential Compliance Manual, Docket Number 21-BSTD-04

On behalf of the Natural Resources Defense Council (NRDC) who is advocating for affordable and equitable building decarbonization and clean air policies to help mitigate the climate crisis, we respectfully submit the following comments in response to the California Energy Commission's (CEC) Draft 2022 Energy Code Multifamily and Nonresidential Compliance Manual. The compliance manuals are an important component of the Title 24 documents as they provide guidance and compliance options for practitioners following the code.

As submitted in NRDC's joint comments on the Title 24 2022 Express Terms¹, NRDC recommends that the California Energy Commission (CEC) include an alternate compliance pathway in the 2022 Multifamily and Nonresidential Compliance Manual that would allow for all-electric heat pumps that meet specific design criteria to be installed in nonresidential and multifamily buildings in climate zones 1 and 16 under the prescriptive compliance pathway.

The recently adopted 2022 update of Title 24 Part 6 makes many great strides toward building decarbonization and we strongly support it. However, this issue is one area where the 2022 update is a regression versus the 2019 code relative to building decarbonization. Under Title 24 2019, a minimum efficiency electric heat pump can currently be installed prescriptively in any climate zone, including ductless, ducted, water-source, and packaged terminal heat pumps. Title 24 2022 as adopted sets all electric heat pump baselines for single-zone systems for most non-residential and multifamily building types in all climate zones, except for climate zones 1 and 16. NRDC in general strongly supports these updated baselines, which are a major step forward to encourage decarbonization of space heating in non-residential and multifamily buildings. However, in climate zones 1 and 16 the 2022 standards set the baseline prescriptive system as a dual-fuel heat pump. This prevents the installation of any single-zone all-electric heat pump in either of these climate zones under the prescriptive path.

As submitted in NRDC's joint comments on the 2022 Express Terms,² this is a step backward from what is allowed today and would require the installation of unnecessary gas infrastructure in buildings complying prescriptively in these climate zones. While climate zones 1 and 16 represent a small share of new construction in California, requiring gas infrastructure under the prescriptive path in these climate zones is not aligned with the state's emissions reduction goals and would result in the installation of unnecessary new gas infrastructure. The prescriptive path is used extensively in multifamily and non-residential buildings. Without an alternative compliance option, the prohibition of electric heat pumps in the prescriptive path will slow the adoption of heat pumps in climate zones 1

¹ <https://efiling.energy.ca.gov/GetDocument.aspx?tn=238139&DocumentContentId=71401>

² *ibid*

and 16 and lead to continued gas infrastructure development, in spite of the availability of alternatives, such as cold climate heat pumps, that perform well in these climate zones.

While we understand that a minimum efficiency split heat pump has a higher Time Dependent Valuation score in climate zones 1 and 16 than a dual fuel heat pump and therefore does not meet the commission's requirements for a baseline system, we urge the commission to create an alternative compliance path for heat pumps that meet certain performance criteria using section 10-109 of the code and to specify this compliance path in the 2022 Compliance Manual. To ensure good heat pump performance in these colder climates, we recommend that this compliance option include minimum specifications for cold climate performance. For residential equipment used in multifamily buildings, we recommend the alternative compliance option requirements in these climate zones align with the Northeast Energy Efficiency Partnership's cold climate specification that requires equipment to have a coefficient of performance (COP) greater than 1.75 at 5°F (at maximum capacity), use a variable speed compressor, and have a heating seasonal performance factor (HSPF) greater than 9.5. For commercial equipment, we recommend that the CEC set minimum COP and capacity requirements at 17°F, which are typically reported by manufacturers, and require the use of a variable speed compressor. The COP requirement should be set such that equipment performs as well on a TDV basis as the dual fuel heat pump baseline.

We appreciate the CEC's consideration of this issue and urge the CEC to include this alternate compliance path in the Multifamily and Nonresidential Compliance Manual.

Sincerely,

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