

DOCKETED

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Comment Received From: Pierre Delforge
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**NRDC comments on 2019 Alternative Calculation Method Reference
Manuals and Compliance Software Tools**

Additional submitted attachment is included below.



Dear Commissioner McAllister and Energy Commission Staff:

May 7, 2021

Re. Comments on 2019 Compliance Software, 19-BSTD-01

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) in response to the proposed revision to the 2019 Nonresidential and Residential ACM Reference Manuals and Compliance Software.

HRV Credit

The proposed update includes a reduction in the heat recovery ventilators (HRV) compliance credit which is currently much higher than warranted. HRV is an important technology for high performance buildings by enabling balanced ventilation with minimal thermal losses. However, providing a credit that exceeds the actual benefits of HRVs by a large margin is problematic: it allows building designs to trade off other energy efficiency measures, such as high-performance attics or walls, and competes with other measures that would provide high climate and economic benefits.

One such measure is heat pump water heaters (HPWH) as an alternative to gas water heaters that are currently used in the vast majority of new single-family homes. HPWH are available today, they cost no more to install than gas alternatives, will save users money on their utility bills, and reduce climate pollution by more than half over their lifetime.¹

HPWH that meet the Northwest Energy Efficiency Alliance (NEEA) Tier 4 specification, which are currently available on the market, they provide between 1 and 2 EDR point (when including the grid flexibility and compact distribution complementary credits) which is comparable with the reduction in the HRV credit. There is therefore an alternative credit available that can replace the HRV credit at no additional cost and yield greater cost savings and climate pollution reduction.

We urge CEC to urgently remove this barrier to broader market adoption of HPWH in new construction in California expeditiously. This will not only reduce emissions and costs, it will also

¹ <https://www.nrdc.org/experts/pierre-delforge/electric-heat-pumps-can-slash-emissions-california-homes>

increase the HPWH production volume reducing equipment costs and get installers throughout the state to become familiar with the technology, paving the way for its faster adoption in existing buildings.

JA13 Credit

The proposed software update also includes a new credit for grid flexible HPWH, that meet the Joint Appendix 13 (JA13) specification. NRDC appreciates CEC's leadership in adopting this specification and developing this credit: it will facilitate the adoption of HPWH that shift load from peak to off-peak times, reducing climate pollution, helping integrate renewable energy on the grid, and reducing user energy costs in new construction.

However, this credit is currently very low at just 0.1 to 0.3 EDR points, in large part because the 2019 time-dependent valuation (TDV) metric does not adequately value grid flexibility. The 2022 TDV metric improves on this situation. NRDC urges CEC to anticipate the 2022 metric and set the JA13 credit at the level it will have in the 2022 code, given the limitations of the 2019 TDV which isn't aligned with the state's grid reliability and renewable energy needs. This is an important measure to help evolve building practices toward grid-smart and climate-friendly buildings that will help meet grid reliability needs and achieve California's climate goals in the most affordable manner.

Thank you for your consideration of these comments.

Sincerely,

Pierre Delforge
Senior Scientist
Natural Resources Defense Council