



December 30, 2024

Holly Tapani, Product Manager ENERGY STAR HVAC
U.S. Environmental Protection Agency
Washington, D.C. 20460

Topic: ENERGY STAR® Product Specification for Room Air Conditioners Eligibility Criteria Draft 1 Version 6.0 and Version 7.0

Dear Ms. Tapani

This letter comprises the comments of the Pacific Gas and Electric Company (PG&E), San Diego Gas and Electric (SDG&E), and Southern California Edison (SCE), collectively referred to herein as the California Investor-Owned Utilities (CA IOUs), in response to the United States (U.S.) Environmental Protection Agency (EPA) proposed version 6.0 and version 7.0 Draft 1 product eligibility criteria for Room Air Conditioners (RAC).

The CA IOUs comprise some of the largest utility companies in the nation, serving over 32 million customers in the Western United States. We are committed to helping customers reduce energy costs and consumption while striving to meet their evolving needs and expectations. Therefore, we advocate for standards that accurately reflect the climate and conditions of our respective service areas.

We respectfully submit the following comments to EPA:

1. EPA should modify the implementation of heating metrics in versions 6.0 and 7.0

The CA IOUs agree with the performance metrics that EPA proposes to include in v6.0 and v7.0. However, EPA should consider lowering some of the coefficient of performance (COP) and heating capacity ratio (HCR) values for RACs with reverse cycle operations (i.e., room heat pumps or RHPs). This adjustment would make the new RAC heating mode requirements more inclusive and promotes the development of a greater diversity of RHPs at various price points while ensuring the strong performance expected of an ENERGY STAR product. Reducing the HCRs to levels indicated in Figures 1 and 2 should allow for non-variable speed products to qualify, which would encourage the development of more affordably priced options.

Room Heat Pump Type	HEER (Btu/Wh)	COP at 5°F	COP at 17°F	HCR at 5°F/47°F	HCR at 17°F/47°F
1	5.1	-	-	-	-
2	5.1	-	-	-	-
3	6.8	-	1.5	-	60%
4	6.8	1.5	-	45%	-

Figure 1: IOU Proposal for ENERGY STAR Version 6.0.

Room Heat Pump Type	HEER (Btu/Wh)	COP at 5°F	COP at 17°F	Capacity at 5°F/47°F	Capacity at 17°F/47°F
1	5.8	-	-	-	-
2	5.8	-	-	-	-
3	8.3	-	1.75	-	60%
4	8.3	1.5	-	60%	-

Figure 2: IOU Proposal for ENERGY STAR Version 7.0.

In a future specification, the CA IOUs encourage EPA to consider creating smoother HEER (Heating Energy Efficiency Ratio) level transitions across the room heat pump Types, such as by increasing the HEER level for Type 2 RHPs. The intent being to disincentivize manufacturers from developing a product with functionality just short of qualifying as a Type 3 RHP to only be subject to the significantly less restrictive efficiency specifications of a Type 2 RHP.

- In a future specification, EPA should collaborate with the Consortium for Energy Efficiency (CEE) and align RAC efficiencies where feasible to simplify consumer understanding of tax incentives and rebate-eligible products.**

The Inflation Reduction Act (IRA) of 2022 includes, among other things, two provisions that allow for tax credits and rebates for room heat pumps (RHPs):

- The Energy Efficient Home Improvement Credit (formerly the Nonbusiness Energy Property Credit, 25C) offers a federal tax credit of 30% of the installation and product costs, up to a maximum of \$2,000, for a RHP that meets the highest efficiency tier set by the CEE, excluding any advanced tiers.
- The Home Energy Rebates (HER) allows states to designate up to \$8,000 for a space heating or cooling heat pump. Under HER, other covered home appliances have made ENERGY STAR® certification a requirement for rebate eligibility.¹

RHPs are one of many products that are eligible for both programs. If the RAC specifications from CEE and ENERGY STAR align, consumers will be assured that purchasing a qualified product from one specification will result in eligibility for both incentives.

¹ NYSERDA established its rebate program funded by HER to issue up to \$840 for the installation of a heat pump clothes dryer as designed by ENERGY STAR. NYSERDA Press Office, "Energy Efficient Appliance Rebates Are Now Available for Low- and Moderate-Income New Yorkers," NYSERDA, November 21, 2024, <https://www.nyserderda.ny.gov/About/Newsroom/2024-Announcements/2024-11-21-Saving-Families-Money-Governor-Hochul-Announces-Retail-Rebates>.

CEE issued a draft specification for RHPs in September 2024. This specification proposes several tier levels (Tier 1, Tier 2, and Advanced Tier) for metrics such as combined energy efficiency ratio (CEER), Heating Energy Efficiency Ratio (HEER), COP at 17 °F (COP₁₇) & 5 °F (COP₅), HCR requirements, and Defrost System Type. Since ENERGY STAR released these draft specifications on November 26th, CEE has released its final specification with an effective date of January 1, 2025. The CEE final RHP specifications are generally more stringent than the proposed ENERGY STAR v6.0 draft specifications. Compared to the 25C tax credit CEE-qualified tier (Tier 2), ENERGY STAR v7.0 draft specifications are more lenient for Types 1 and 2 and more stringent for Types 3 and 4.

As the CEE specification was recently finalized, we encourage EPA to coordinate with CEE to ensure that future specifications are aligned as much as reasonably possible to ease consumer understanding of the available financial incentives for purchasing a RHP. The U.S. Department of the Treasury has created examples for consumers to consider when making purchases eligible for the 25C tax credit and other rebates.² Coordination between the CEE may yield similar benefits for consumers purchasing RHPs. This alignment is consistent with EPA's alignment of central air conditioner and heat pump efficiency levels with CEE's air-source heat pump specifications.

3. EPA should require a graphical label that clearly shows the most suitable climate for different room heat pumps.

The CA IOUs agree that a graphical label is helpful for consumers when making purchasing decisions. Describing RHPs merely as Type 1 through 4 will not effectively communicate each product Type's functionality to consumers who are likely unfamiliar with these terms. A graphical label may help consumers better understand equipment behavior, purchase the most appropriate RHP for their climate, and set realistic expectations about the units performance while operating as a heat pump.

A graphical symbol should include elements (a)-(d) below. These elements are intended to strike a balance between creating a functionally useful and easy to understand label without providing too much information resulting in a confusing and ineffectual symbol. Figure 3 demonstrates a label that utilizes elements (a)-(d).

- a) Text and arrows showing the temperature range over which the unit can be expected to operate in heat pump mode compared to the electric resistance heat-only mode.
- b) Text that explains when the equipment will operate more efficiently or less efficiently.
- c) A triangular symbol indicating the model's compressor cut-in temperature. The numeric value of the Compressor Cut-In temperature should be listed next to this symbol, and an explanatory text should define the meaning of compressor cut-in temperature. We suggest a statement such as, "Temperature at which this unit begins operating in heat pump mode."

² U.S. Department of the Treasury, "Coordinating DOE Home Energy Rebates with Energy-Efficient Home Improvement Tax Credits: An Explainer," treasury.gov, July 19, 2024, <https://home.treasury.gov/news/featured-stories/coordinating-doe-home-energy-rebates-with-energy-efficient-home-improvement-tax-credits-an-explainer# ftn6>.

- d) When such information becomes available, the image should present the minimum and maximum compressor cut-in temperatures to help consumers better understand the model's capabilities relative to other options.

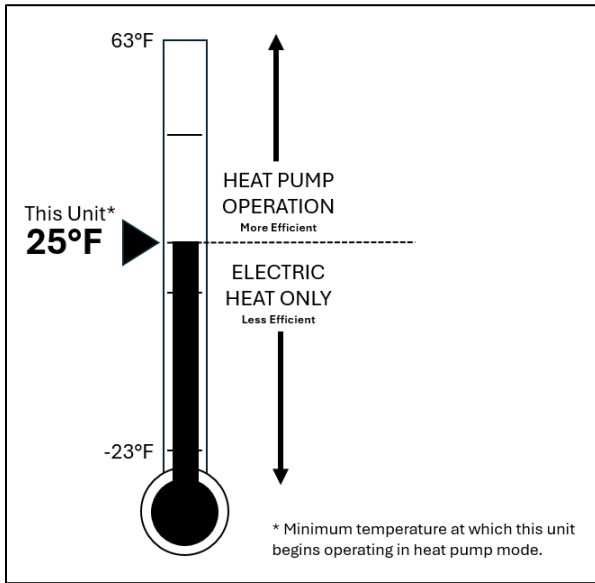


Figure 3. Example graphic that includes elements (a)-(d).

The CA IOUs appreciate the opportunity to provide these comments regarding the ENERGY STAR® Product Specification for Room Air Conditioners Eligibility Criteria Draft 1 Version 6.0 and Version 7.0. We thank EPA for its consideration and look forward to the next steps in the process.

Sincerely,

A large, bold, handwritten signature in black ink, appearing to read 'RWB'.

Rob Bohn
Manager, Codes & Standards
Pacific Gas and Electric Company

A handwritten signature in black ink, appearing to read 'Christopher Malotte'.

Christopher Malotte
Sr. Manager, Codes and Standards
Southern California Edison

A handwritten signature in black ink, appearing to read 'Kate Zeng'.

Kate Zeng
ETP/C&S/ZNE Manager
Customer Programs
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