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*Comment Received From: Rheem Manufacturing Company  
Submitted On: 9/6/2024  
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## **Rheem Comments in Response to August 15 Day Language**

Please see attached comments.

*Additional submitted attachment is included below.*



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September 6, 2024

Submitted via: Docket No. 24-BSTD-01

Commissioner J. Andrew McAllister  
California Energy Commission  
715 P Street  
Sacramento, CA 95814

Re: Comments on August 15-Day Language Part 1, Part 6, and Reference Appendices, Docket 24-BSTD-01

Dear Commissioner McAllister,

Rheem Manufacturing Company (Rheem) appreciates the opportunity to submit the following comments in response to the California Energy Commission's (CEC) August 15-Day Language.

Rheem is an industry leader in total heating, cooling, refrigeration and water heating solutions and one of the few global brands with product offerings covering residential and commercial heating, cooling, conventional and hybrid storage water heaters (HPWH), tankless water heaters, solar water heating systems, pool and spa heaters, commercial boilers, residential hydronic and geothermal systems, commercial refrigeration products, indoor air quality accessories, and replacement parts for all categories. Rheem is headquartered in Atlanta, Georgia, and has U.S. based manufacturing facilities in Alabama, Arkansas, California, Connecticut, and North Carolina. The company also operates distribution facilities throughout the US, Canada, and many other countries around the world.

Rheem recommends that the CEC move away from referencing the Northwest Energy Efficiency Alliance's (NEEA) Advanced Water Heater Specification (AWHS). The AWHS is not developed through a consensus process and adds many prescriptive requirements that go beyond efficiency and limit manufacturer's ability to make heat pump water heaters that fit all market needs. Further, Rheem recommends Joint Appendix 13 (JA13) be amended to reference AHRI 1430, the industry consensus standard for demand response in water heating.

As proposed in the August 15 day language, JA13 will be updated to reference version 8.1 of the AWHS and the reference to AWHS Appendix A will be removed. This section of JA13 is labeled "Efficiency" but reference to Tier 3 adds many requirements unrelated to efficiency, including demand response capability, maximum sound levels, ducting options, and minimum warranty.

AWHS version 8.1 demand response capability requires EcoPort or AHRI 1430 compliance, but AHRI 1430 compliance will only be recognized when there is a qualified products list (QPL). Therefore, the only method for listing a Tier 3 heat pump water



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heater is to test, certify, and pay for the EcoPort mark. Rheem notes that EcoPort capabilities don't fully align with demand management system requirements of JA13. Further, this requirement increases certification and compliance burden, while also complicating and confusing which QPL should be used to verify demand response capabilities.

On sound testing, Rheem notes that the sound pressure method presented in AWHs Appendix C is far from the standard practice for sound measurement, which is sound power. The language to establish the loudest operating state results in sound ratings that are not representative of in-field operation and the location of the measurement equipment advantages top exhaust heat pump water heaters.

Tier 2 and above of the AWHs requires a 10-year parts and 1 year labor warranty. By requiring Tier 3, the CEC is imposing warranty provisions on manufacturers.

Rheem recommends the CEC remove efficiency requirements from JA13. Efficiency is more appropriately handled in the portions of the building code that already address efficiency. The demand response portion of the building code should set demand response requirements while seeking to encourage demand response adoption. Rheem notes that inclusion of efficiency requirements in JA13 may hinder demand response adoption especially with the expected proliferation of lower UEF heat pump water heaters because of the recently published DOE energy conservation standard setting a baseline 2.3 UEF for electric storage water heaters between 20-55 gallons. If the CEC maintains efficiency requirements in JA13, Rheem recommends alignment with the DOE's future efficiency requirements which will be required on May 6, 2029. If the CEC wants to maintain higher UEF requirements, then Rheem recommends the CEC align with the UEF requirements within the Energy Star Specification.

The CEC proposal removes "excluding Appendix A" from the efficiency requirements. Appendix A in version 7.0 addressed 120V heat pump water heaters. From the plain reading of this language, it is unclear whether the current provisions exclude 120V water heaters to be JA13 compliant or whether they must meet the efficiency requirements of 240V heat pump water heaters. Rheem recommends that 120V heat pump water heaters be separately considered, if the CEC retains efficiency requirements within JA13. Rheem notes that provisions addressing 120V heat pump water heaters have been separately proposed in the main body of Title 24.

As stated above, Rheem recommends the CEC move away from referencing the AWHs throughout the building code, and not just in JA13. Provisions within the AWHs that are desirable to the CEC should explicitly be stated, which will allow industry to comment on their appropriateness within the building code.

Finally, to simplify the number of competing demand response requirements, Rheem suggests the CEC replace section JA13.3 *Qualification Requirements* with a requirement for AHRI 1430



compliance, or to allow AHRI 1430 as an alternate compliance pathway. Rheem notes that compliance with AHRI 1430 means all demand response requirements of section JA13.3 are met.

Thank you for the opportunity to provide these comments. If there are questions, please contact me directly.

Sincerely,

James Phillips  
Senior Regulatory Affairs Manager  
Rheem Manufacturing Company

cc: Joe Boros, Karen Meyers

