

Appliance Standards Awareness Project  
American Council for an Energy-Efficient Economy  
Natural Resources Defense Council

February 8, 2022

Ms. Catherine Rivest  
U.S. Department of Energy  
Office of Energy Efficiency and Renewable Energy  
Building Technologies Office, EE-2J  
1000 Independence Avenue SW, Washington, DC 20585

**RE: Docket Number EERE-2021-BT-TP-0019: Proposed Rule for Test Procedures for VRF Multi-Split Systems**

Dear Ms. Rivest:

This letter constitutes the comments of the Appliance Standards Awareness Project (ASAP), the American Council for an Energy-Efficient Economy (ACEEE), and the Natural Resources Defense Council (NRDC) on the notice of proposed rule for test procedures for VRF multi-split systems. 86 Fed. Reg. 70644 (December 10, 2021). We appreciate the opportunity to provide input to the Department.

**We support DOE's proposal to require manufacturers to certify represented values based on the refrigerant listed on a unit's nameplate that results in the lowest cooling efficiency.** This will ensure that when manufacturers test a basic model, they don't select a refrigerant that results in a rating that overstates the efficiency of the equipment if charged with another refrigerant in the field. However, to encourage the use of the most efficient refrigerants, if feasible, we believe that it would make sense to allow manufacturers to make efficiency claims in marketing materials for all nameplate refrigerants.

**We support DOE's proposal to include heating capacity in public certification reporting requirements for VRF heat pumps.** This proposal aligns with the treatment of the cooling capacity metric. Furthermore, since rated heating capacity is of interest to purchasers, its availability to the public, rather than in supplemental testing instructions, is important.

**We support DOE's proposal to provide clarification on manufacturer involvement during assessment and enforcement testing.** We believe that it is important that the test procedure clearly defines how a manufacturer is permitted to participate in assessment and enforcement testing. DOE describes in the NOPR that Sections 5.1.2 and 6.3.3 of AHRI 1230-2021 contain a description of who performs critical parameter adjustment in a CVP that is ambiguous<sup>1</sup>. We therefore agree with DOE's proposal not to adopt these sections of the referenced standard. We support DOE's proposed regulatory text that clarifies which settings must be set by a member of the third-party laboratory and which may be set by a manufacturer's representative.

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<sup>1</sup> <https://www.regulations.gov/document/EERE-2021-BT-TP-0019-0002> p. 70667

**We support DOE's proposed enforcement sampling plan.** DOE explains in the NOPR that current provisions for enforcement testing for commercial air conditioners and heat pumps specify a sample size of no more than four units. However, due to the complexity of the test procedure commissioning for VRF equipment, DOE is proposing an enforcement sample of two units to reflect what it expects to be standard practice. We support the proposed enforcement sampling plan, and we agree that it is reasonable to conduct the CVP on only one of the two units.

**We support DOE's proposal to conduct the CVP at all four IEER cooling test conditions.** It is important that the controls at both full- and part-load conditions operate in a manner that produces a valid IEER rating. Conducting the CVP at each of the four load points will validate whether the variation of the critical parameters by the native controls are within the allowed budget.

**We encourage DOE to clarify the procedure for when a manufacturer becomes aware that the certified operational settings for the critical parameters are invalid.** We support DOE's proposal that if a manufacturer "has knowledge" that any of its certified operational settings for critical parameters are invalid according to a CVP (that is either conducted by the manufacturer or by a third party), then the manufacturer must re-certify critical parameter settings for all affected basic models, and re-rate and re-certify all affected basic models. However, we encourage DOE to provide additional clarification to manufacturers on the timeline between first becoming aware of the invalid CVP settings and the requirement to re-certify impacted basic models.

Thank you for considering these comments.

Sincerely,



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Appliance Standards Awareness Project



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American Council for an Energy-Efficient Economy



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