Appliance Standards Awareness Project
American Council for an Energy-Efficient Economy
Consumer Federation of America
Natural Resources Defense Council
Northwest Energy Efficiency Alliance

August 8, 2022

Mr. Bryan Berringer
U.S. Department of Energy
Office of Energy Efficiency and Renewable Energy
Building Technologies Office, EE-5B
1000 Independence Avenue SW
Washington, DC 20585

RE: Docket Number EERE–2019–BT–TP–0026/RIN 1904–AE60: Notice of Proposed Rulemaking for Test Procedures for Dehumidifiers

Dear Mr. Berringer:

This letter constitutes the comments of the Appliance Standards Awareness Project (ASAP), American Council for an Energy-Efficient Economy (ACEEE), Consumer Federation of America (CFA), Natural Resources Defense Council (NRDC), and Northwest Energy Efficiency Alliance (NEEA) on the notice of proposed rulemaking (NOPR) for test procedures for dehumidifiers. 87 Fed. Reg. 35286 (June 9, 2022). We appreciate the opportunity to provide input to the Department.

We appreciate the load-based investigative testing that DOE conducted for the NOPR and encourage DOE to continue to investigate load-based testing for dehumidifiers. In the current test procedure, temperature and humidity conditions are held constant during testing such that the unit under test operates at full capacity for the duration of the test. For the NOPR, DOE conducted limited investigative testing to determine the differences in performance of a single-speed dehumidifier and a variable-speed dehumidifier under different moisture loads.[1] As part of this testing, DOE found that the variable-speed unit that was tested performed relatively less efficiently than the single-speed unit at each reduced moisture load. DOE concluded from these results that the investigative testing "does not support use of a load-based test to differentiate single-speed dehumidifiers from variable-speed dehumidifiers at this time."[2] However, we believe that the results of DOE's investigative testing still point to the importance of load-based testing in order to help ensure that the test procedure provides an accurate relative ranking of products under realistic operating conditions. In particular, DOE's test results seem to suggest that the current test procedure may result in overestimating the real-world efficiency of the variable-speed unit that was tested relative to the single-speed unit.

[1] 87 Fed. Reg. 35298.
[2] 87 Fed. Reg. 35299.

DOE acknowledges in the NOPR that a load-based test may be able to better capture the efficiency performance of dehumidifiers under conditions where the unit would likely cycle on and off. A load-based test may also be able to capture energy losses due to moisture re-evaporation when the fan continues to run after the compressor cycles off. We therefore encourage DOE to continue to investigate load-based testing as a means to better reflect the real-world operation of dehumidifiers.

We urge DOE to require that all dehumidifiers be tested with any network functions in the default factory setting. In the NOPR, DOE proposed to require that dehumidifiers with network functions be tested with the network functions in the "off" position if the functions can be disabled by the consumer and the user manual provides instructions for how to do so.[3] We are concerned that DOE's proposal would allow many dehumidifiers to be tested with network functions disabled even though those functions may be unlikely to be disabled in the field. Specifically, if a dehumidifier with connected features is shipped with those features enabled, we believe that it is unlikely that most consumers will take the necessary steps to disable the connected features, even if the user manual provides instructions for doing so. We therefore urge DOE to require that all dehumidifiers be tested "as shipped," regardless of whether the user manual provides instructions for disabling the network functions. Doing so will help provide a more representative measurement of energy use of the product as it is being used by consumers.

Thank you for considering these comments.

Sincerely,

Kanchan Swaroop
Technical Advocacy Associate
Appliance Standards Awareness Project

Amber Wood
Director, Buildings Program
American Council for an Energy-Efficient Economy

Richard Eckman
Energy Research Associate
Consumer Federation of America

Joe Vukovich
Energy Efficiency Advocate
Natural Resources Defense Council

Blake Ringeisen
Sr. Engineer, Codes and Standards
Northwest Energy Efficiency Alliance

[3] 87 Fed. Reg. 35305.