



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
AIR AND RADIATION

July 24, 2024

Dear ENERGY STAR® Room Air Conditioners Brand Owner Partners and Other Interested Stakeholders:

The U.S. Environmental Protection Agency (EPA) and U.S. Department of Energy (DOE) are pleased to announce the release of the [Final ENERGY STAR Test Method to Determine Room Air Conditioner Heating Mode Performance](#). The EPA would like to thank the many stakeholders who have invested time and resources in contributing feedback that has informed this test method development process.

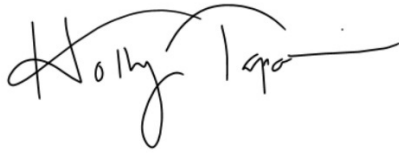
In response to the Final Draft, the EPA received a recommendation that the test method require defrost testing for all variable-speed room heat pumps (RHPs), noting the optional defrost ($H_{2,int}$) test is not sufficiently incentivized in lieu of the alternative calculation. In response to this comment, the DOE and EPA analyzed available data for variable-speed RHPs and mini-splits and found that, for some units, the alternative calculation overstated efficiency compared to using data resulting from the optional defrost test. Rather than requiring this defrost test for Type 3 and Type 4 variable-speed RHPs, which would increase testing burden, the Agencies are adopting a 0.95 correction factor in the final heating energy efficiency ratio (HEER) equation for models that elect to use the alternative calculation in lieu of the defrost test. This change will ensure the alternative calculation is more conservative than conducting the optional defrost test.

The EPA and DOE have also corrected minor errors and made clarifying editorial changes to the test method in response to the comments received; responses to all comments can be found in the accompanying [Final Draft Comment Response Matrix](#).

The development of this test procedure was led by the DOE to allow for the introduction of heating mode criteria to the ENERGY STAR Room Air Conditioners specification. The EPA is aware of the need to develop heating mode criteria in the ENERGY STAR Room Air Conditioner specification and is working with stakeholders to do so as soon as possible. To assist with future heating mode data reporting, the EPA has published an [ENERGY STAR Room Air Conditioner Heating Mode Performance Test Reporting Template](#). As a reminder, all documents related to this process are posted to the [ENERGY STAR Room Air Conditioner Heating Mode Test Method Development webpage](#).

Thank you for your continued support of the ENERGY STAR Program. If you have any questions or feedback, please direct them to Holly Tapani at the EPA, Tapani.Holly@epa.gov or 202-751-5089, Steve Leybourn at the EPA, Leybourn.Stephen@epa.gov or 202-934-2262, and Megan McNelly at ICF, Megan.McNelly@icf.com or 703-934-3726. For test method questions, please contact Lucas Adin at the DOE, lucas.adin@ee.doe.gov.

Sincerely,



Holly Tapani
U.S. Environmental Protection Agency
ENERGY STAR HVAC Program



Steve Leybourn
U.S. Environmental Protection Agency
ENERGY STAR Appliances Program

Enclosures:

[Final ENERGY STAR Test Method to Determine Room Air Conditioner Heating Mode Performance](#)
[ENERGY STAR Final Draft Test Method to Determine Room Air Conditioner Heating Mode Performance](#)
[Comment Response Matrix](#)
[ENERGY STAR Room Air Conditioner Heating Mode Performance Test Reporting Template](#)