

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



OFFICE OF
AIR AND RADIATION

July 25, 2022

Dear ENERGY STAR® Room Air Conditioner Brand Owners and Other Interested Parties,

With this letter, the U.S. Environmental Protection Agency (EPA) is sharing the [ENERGY STAR Version 5.0 Room Air Conditioner Draft 1 specification](#). EPA welcomes stakeholder input on this Draft 1 specification; please provide written comments via email to appliances@energystar.gov no later than September 1, 2022. EPA will hold a stakeholder webinar on August 17, 2022 from 2 to 4 pm EST to discuss this draft with interested parties. Stakeholders interested in attending the webinar should register [here](#).

EPA is proposing to revise the ENERGY STAR certified room air conditioners specification for multiple reasons. The ENERGY STAR market share has grown; in 2020 it was 54%, highlighting the opportunity to recognize a higher level of efficiency. Further, the Department of Energy (DOE) published a [Notice of Proposed Rulemaking \(NOPR\) to revise the federal efficiency standard for room air conditioners](#) on April 7, 2022 with a proposal of levels that exceed those of the current ENERGY STAR requirements. Accordingly, EPA is proposing new efficiency criteria.

Key elements of the Version 5.0 Draft 1 proposal include:

- **Revised Efficiency Criteria**

EPA is proposing that to qualify for ENERGY STAR, room air conditioners must be at least 19-50% more efficient than those meeting the 2014 minimum federal efficiency standards, depending on the product class. EPA estimates that room air conditioners that meet the proposed ENERGY STAR specification will equate to an average national energy cost savings of over \$85 million and prevent nearly 2.4 billion pounds of carbon emissions per year. As with all ENERGY STAR products, EPA is working with DOE on this ENERGY STAR revision and will ensure the revision is informed by that regulatory process.

- **Optional 'Connected' Criteria**

EPA is considering revising optional connected criteria for room air conditioners. EPA is seeking to make the connected criteria both more useful to those interested in grid response from room air conditioners and less burdensome to test and meet for brand owners, which together should increase the number of connected products on the market. As such, EPA is proposing and/or seeking feedback on the following:

1. Connectivity protocols, and if brand owners would be open to EPA specifying compliance with specific protocols, and if this would be helpful for utilities and aggregators.
2. Evaluation of connectivity through the examination of documentation and product(s) information, and if this would lead to more connected recognition of more product lines by product brand owners.
3. Connected recognition of wider variety of room air conditioner models, and if this would make reliance on ENERGY STAR connected recognition more useful for utilities and aggregators.

In light of EPA's current understanding of Demand Response (DR) programs and concerns EPA has received about the complexity of the connected criteria for room air conditioners, EPA is considering simplifying the connected criteria and associated test procedure. EPA believes that utilities have moved towards adopting demand response programs that are not product-specific, and EPA is not aware of any utilities with plans to include room air conditioner-specific demand response programs going forward.

Furthermore, EPA plans to discontinue the 5% energy use allowance for connected products. This change is based on multiple factors. The first, noted above, is the market shift away from product-specific DR programs. The second is an unintended consequence that EPA has observed from the current credit. EPA has not seen large numbers of ENERGY STAR models certified as connected while the models that do claim the credit are those that need the 5% credit to meet the efficiency criteria. Meanwhile, highly efficient models that are Smart or Wi-Fi capable are not being certified as Connected, working against the program's intent to deliver both efficiency and performance.

- **Refrigerant Type Reporting**

EPA is proposing a reporting requirement for the refrigerant type to allow consumers to easily identify products with lower-GWP refrigerants.

- **Sound Performance Reporting**

Informed by stakeholders that increasing room air conditioner efficiency can be reasonably achieved by increasing fan speeds with a resulting effect on noise, EPA is proposing a reporting requirement for the indoor sound pressure performance at the lowest operational cooling level, which may be preferred by consumers sleeping or working in proximity to the units.

Stakeholders are requested to provide any comments on the Version 5.0 Draft 1 specification **no later than September 1, 2022**. Please send comments via e-mail to appliances@energystar.gov. All comments received will be posted to the [ENERGY STAR Room Air Conditioner Version 5 development page](#), unless the submitter specifically requests that comments remain confidential.

Please direct any specific questions to Park.Ga-Young@epa.gov or (202) 564-1085, or Steve Leybourn at Steve.Leybourn@icf.com or (202) 862-1566.

Thank you for your continued support of ENERGY STAR.

Sincerely,



Ga-Young Park
Product Manager for Appliances
ENERGY STAR Labeled Products

Enclosures:

[ENERGY STAR Version 5.0 Room Air Conditioner Draft 1 Specification](#)

[ENERGY STAR Version 5.0 Room Air Conditioner Draft 1 Data & Analysis Package](#)