



## ENERGY STAR® Program Requirements for Room Air Cleaners Partner Commitments

Following are the terms of the ENERGY STAR Partnership Agreement as it pertains to the manufacture and labeling of ENERGY STAR certified products. The ENERGY STAR Partner must adhere to the following partner commitments:

### Certifying Products

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1. **Comply with current ENERGY STAR Eligibility Criteria**, which define performance requirements and test procedures for room air cleaners. A list of eligible products and their corresponding Eligibility Criteria can be found at [www.energystar.gov/specifications](http://www.energystar.gov/specifications).
2. **Prior to associating the ENERGY STAR name or mark with any product**, obtain written certification of ENERGY STAR certification from a Certification Body recognized by EPA for room air cleaners. As part of this certification process, products must be tested in a laboratory recognized by EPA to perform room air cleaner testing. A list of EPA-recognized laboratories and Certification Bodies can be found at [www.energystar.gov/testingandverification](http://www.energystar.gov/testingandverification).

### Using the ENERGY STAR Name and Marks

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3. Comply with current ENERGY STAR Brand Book, which define how the ENERGY STAR name and marks may be used. Partner is responsible for adhering to these guidelines and ensuring that its authorized representatives, such as advertising agencies, dealers, and distributors, are also in compliance. The ENERGY STAR Brand Book are available at [www.energystar.gov/logouse](http://www.energystar.gov/logouse).
4. Use the ENERGY STAR name and marks only in association with certified products. Partner may not refer to itself as an ENERGY STAR Partner unless at least one product is certified and offered for sale in the U.S. and/or ENERGY STAR partner countries.
5. Provide clear and consistent labeling of ENERGY STAR certified room air cleaners.
  - 5.1. The ENERGY STAR mark must be clearly displayed on the top/front of the product, in product literature (i.e., user manuals, spec sheets, etc.), on product packaging, and on the manufacturer's Internet site where information about ENERGY STAR certified models is displayed.
  - 5.2. Partner shall adhere to the following product-specific commitments regarding use of the ENERGY STAR certified mark on certified products:
    - 5.2.1. In addition to the ENERGY STAR mark, or instead of the ENERGY STAR mark, **the ENERGY STAR disclaimer label**, available to partners via their [My ENERGY STAR Account \(MESA\)](#), shall be placed on the product packaging of ENERGY STAR certified air cleaners. The disclaimer logo includes the following statement:

“This product earned the ENERGY STAR label by meeting strict energy efficiency guidelines set by the U.S. EPA. Room air cleaners have demonstrated the potential for improving air quality and providing health benefits. EPA does not endorse manufacturer claims regarding the degree to which a specific product will produce healthier indoor air.”



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The minimum required dimensions for the vertical and horizontal disclaimer labels are 1.5" x 3.5" and 3.5" x 1.5". The graphic shall be scalable if the partner wishes to enlarge it for larger product packaging surfaces.

- 5.2.2. In addition to the text provided above, the following statement shall be included in the Instruction Manual that is shipped with the certified model and on the partner's Web site.

"The energy efficiency of this ENERGY STAR certified model is based on the Integrated Energy Factor (IEF), a ratio between the model's PM<sub>2.5</sub> CADR and its energy consumption, in terms of CADR/Watt."

The placement of this statement shall be in close proximity to the ENERGY STAR mark and any text describing the ENERGY STAR program and/or certified products.

### **Verifying Ongoing Product Certification**

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6. Participate in third-party verification testing through a Certification Body recognized by EPA for room air cleaners, providing full cooperation and timely responses. EPA/DOE may also, at its discretion, conduct tests on products that are referred to as ENERGY STAR certified. These products may be obtained on the open market, or voluntarily supplied by Partner at the government's request.

### **Providing Information to EPA**

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7. Provide unit shipment data or other market indicators to EPA annually to assist with creation of ENERGY STAR market penetration estimates, as follows:
- 7.1. Partner must submit the total number of ENERGY STAR certified room air cleaners shipped in the calendar year or an equivalent measurement as agreed to in advance by EPA and Partner. Partner shall exclude shipments to organizations that rebrand and resell the shipments (unaffiliated private labelers).
  - 7.2. Partner must provide unit shipment data segmented by meaningful product characteristics (e.g., type, capacity, presence of additional functions) as prescribed by EPA.
  - 7.3. Partner must submit unit shipment data for each calendar year to EPA or an EPA-authorized third party, preferably in electronic format, no later than March 1 of the following year.

Submitted unit shipment data will be used by EPA only for program evaluation purposes and will be closely controlled. If requested under the Freedom of Information Act (FOIA), EPA will argue that the data is exempt. Any information used will be masked by EPA so as to protect the confidentiality of the Partner.

8. Report to EPA any attempts by recognized laboratories or Certification Bodies (CBs) to influence testing or certification results or to engage in discriminatory practices.
9. Notify EPA of a change in the designated responsible party or contacts within 30 days using the MESA tool available at [www.energystar.gov/mesa](http://www.energystar.gov/mesa).

## Performance for Special Distinction

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In order to receive additional recognition and/or support from EPA for its efforts within the Partnership, the ENERGY STAR Partner may consider the following voluntary measures, and should keep EPA informed on the progress of these efforts:

- Provide quarterly, written updates to EPA as to the efforts undertaken by Partner to increase availability of ENERGY STAR certified products, and to promote awareness of ENERGY STAR and its message.
- Consider energy efficiency improvements in company facilities and pursue benchmarking buildings through the ENERGY STAR Buildings program.
- Purchase ENERGY STAR certified products. Revise the company purchasing or procurement specifications to include ENERGY STAR. Provide procurement officials' contact information to EPA for periodic updates and coordination. Circulate general ENERGY STAR certified product information to employees for use when purchasing products for their homes.
- Feature the ENERGY STAR mark(s) on Partner website and other promotional materials. If information concerning ENERGY STAR is provided on the Partner website as specified by the ENERGY STAR Web Linking Policy (available in the Partner Resources section of the ENERGY STAR website), EPA may provide links where appropriate to the Partner website.
- Ensure the power management feature is enabled on all ENERGY STAR certified displays and computers in use in company facilities, particularly upon installation and after service is performed.
- Provide general information about the ENERGY STAR program to employees whose jobs are relevant to the development, marketing, sales, and service of current ENERGY STAR certified products.
- Provide a simple plan to EPA outlining specific measures Partner plans to undertake beyond the program requirements listed above. By doing so, EPA may be able to coordinate, and communicate Partner's activities, provide an EPA representative, or include news about the event in the ENERGY STAR newsletter, on the ENERGY STAR website, etc. The plan may be as simple as providing a list of planned activities or milestones of which Partner would like EPA to be aware. For example, activities may include: (1) increasing the availability of ENERGY STAR certified products by converting the entire product line within two years to meet ENERGY STAR guidelines; (2) demonstrating the economic and environmental benefits of energy efficiency through special in-store displays twice a year; (3) providing information to users (via the website and user's manual) about energy-saving features and operating characteristics of ENERGY STAR certified products; and (4) building awareness of the ENERGY STAR Partnership and brand identity by collaborating with EPA on one print advertorial and one live press event.
- Join EPA's SmartWay Transport Partnership to improve the environmental performance of the company's shipping operations. The SmartWay Transport Partnership works with freight carriers, shippers, and other stakeholders in the goods movement industry to reduce fuel consumption, greenhouse gases, and air pollution. For more information on SmartWay, visit [www.epa.gov/smartway](http://www.epa.gov/smartway).
- Join EPA's Green Power Partnership. EPA's Green Power Partnership encourages organizations to buy green power as a way to reduce the environmental impacts associated with traditional fossil fuel-based electricity use. The partnership includes a diverse set of organizations including Fortune 500 companies, small and medium businesses, government institutions as well as a growing number of colleges and universities. For more information on Green Power, visit [www.epa.gov/greenpower](http://www.epa.gov/greenpower).



## ENERGY STAR® Product Specification for Room Air Cleaners

### Eligibility Criteria Version 3.0

Following is the Version 3.0 ENERGY STAR product specification for room air cleaners. A product must meet all of the identified criteria if it is to earn the ENERGY STAR.

#### 1 DEFINITIONS

Below are the definitions of the relevant terms in this document.

- A. Air Cleaner<sup>1</sup>: A product for improving indoor air quality, other than a central air conditioner, room air conditioner, portable air conditioner, dehumidifier, or furnace, that is an electrically-powered, self-contained, mechanically encased assembly that contains means to remove, destroy, or deactivate particulates, VOC, and/or microorganisms from the air. It excludes products that operate solely by means of ultraviolet light without a fan for air circulation.
- B. Conventional Room Air Cleaner<sup>1</sup>: An air cleaner that –
- (1) Is a portable or wall mounted (fixed) unit, excluding ceiling mounted unit, that plugs into an electrical outlet;
  - (2) Operates with a fan for air circulation; and
  - (3) Contains means to remove, destroy, and/or deactivate particulates.

The term portable is as defined in section 2.1.3.1 of AHAM AC-7-2022 and fixed is as defined in section 2.1.3.2 of AHAM AC-7-2022.

1. Fan with Filter<sup>2</sup>: Conventional room air cleaner that operates with an electrical source of power and which contains a motor and fan for drawing air through a filter media.
2. Fan with Electrostatic Plates<sup>2</sup>: Conventional room air cleaner which operates with a fan and incorporates electrically charged plates or wires to electrostatically collect particulate matter. Such devices may include filter(s).
3. Fan Filter with Ion Generator<sup>2</sup>: Conventional room air cleaner that incorporates an ion generator in addition to a fan and filter.
4. Ion Generator<sup>2</sup>: Conventional room air cleaner that incorporates an ion generator only.
5. Hybrid<sup>2</sup>: Conventional room air cleaner employing a combination of the above definitions of fan with filter, electrostatic plate/wire, and ion generator.
6. Combination Product: Conventional room an air cleaner that provides an additional function, not related to air purification, within the same housing, such as a humidifier or space heater.
7. Ozone Generator: A device intended to reduce or eliminate microorganisms within a room solely by means of introducing ozone into the room environment.

<sup>1</sup> 10 CFR 430.2

<sup>2</sup> ANSI/AHAM AC-1-2020

- C. Clean Air Delivery Rate (CADR)<sup>3</sup>: The measure of the delivery of contaminant free air, within a defined particle size range, by an air cleaner, expressed in cubic feet per minute (cfm). CADR is the rate of contaminant reduction in the test chamber when the air cleaner is turned on, minus the rate of natural decay when the air cleaner is not running, multiplied by the volume of the test chamber as measured in cubic feet.
- Note:** CADR values are always the measurement of an air cleaner performance as a complete system and has no linear relationship to the air movement per se or to the characteristics of any particle removal methodology.
- D. Integrated Energy Factor (IEF)<sup>3</sup>: The energy the air cleaner uses when it is in standby mode, as well as its active mode energy. This is fully defined as the measured PM<sub>2.5</sub> CADR per watt.
- E. PM<sub>2.5</sub><sup>3</sup>: A particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured by a reference method based on 40 C.F.R Part 50 Annex I. and designated in accordance with 40 C.F.R part 53 or by an equivalent method designated in accordance with 40 C.F.R. Part 53.
- F. PM<sub>2.5</sub> CADR<sup>3</sup>: The combination of CADR of cigarette smoke particle sizes ranging from 0.1 and 0.5 microns with the CADR of dust particles that fall in the range of 0.5 to 2.5 microns and performing a geometric average calculation.
- G. Room Air Cleaner Functions:
1. Primary Function<sup>3</sup>: An air cleaning function that reduces the concentration of one or more types of indoor air pollutants.
  2. Secondary Function<sup>3</sup>: A function that enables, supplements, or enhances a primary function. For Room Air Cleaners, secondary functions are other functions which are not directly related to air cleaning. Examples may include a vacuum, heating, humidification, or additional ambient room lights (ex. night light).
- H. Basic Model<sup>4</sup>: All units of a given type of product (or class thereof) manufactured by one manufacturer, having the same primary energy source, and which have essentially identical electrical, physical, and functional (or hydraulic) characteristics that affect energy consumption, energy efficiency, water consumption, or water efficiency.

## 2 SCOPE

### A. Included Products

1. Products that meet the definition of a conventional room air cleaner as specified herein are eligible for ENERGY STAR certification under this specification, with the exception of products listed in Section 2.B. Certified room air cleaner models shall have a PM<sub>2.5</sub> CADR between 30 to 600 cubic feet per minute (cfm), inclusive, to be eligible under this specification.

### B. Excluded Products

1. Products that are covered under other ENERGY STAR product specifications are not eligible for certification under this specification. The list of specifications currently in effect can be found at [www.energystar.gov/specifications](http://www.energystar.gov/specifications).
2. The following products are not eligible for certification under this specification, as defined in Section 1:
  - i. Combination products and
  - ii. Ozone generators.

<sup>3</sup> Appendix FF to Subpart B of 10 CFR 430

<sup>4</sup> 10 CFR 430.2

### 3 CERTIFICATION CRITERIA

#### A. General Requirements

1. UL Safety Requirements for Ozone Emitting Models: To certify for ENERGY STAR, measured ozone, per UL 867 Ed. 5.0, shall not exceed 50 parts per billion (ppb).

#### B. IEF Requirements

**Table 1: Minimum IEF Requirements**

<b>PM<sub>2.5</sub> CADR Bins</b>	<b>Minimum IEF</b>
30 ≤ PM <sub>2.5</sub> CADR < 100	4.4
100 ≤ PM <sub>2.5</sub> CADR < 150	5.4
PM <sub>2.5</sub> CADR ≥ 150	5.6

#### C. Model Numbers

1. Report the model numbers used for ENERGY STAR certified product submissions which shall be consistent with DOE (as specified in 10 CFR 429.68(b)) submissions.

#### D. Additional Reporting Requirements

1. Report the filter type shipped with the product and the replacement filter model number.
2. Report the rated and measured CADR for pollen, dust and smoke per the Appendix FF.
3. Report the measured operating power in watts for pollen, dust, and smoke per the Appendix FF.
4. Report the ozone emissions in parts per billion (ppb) per the UL 867 Ed. 5.0 Electrostatic Air Cleaners.

**Note:** Additional reporting requirements will be collected through the certification body the same way as other product features (such as technology, auto cleaning mode, ability to connect to a network, etc).

### 4 TEST REQUIREMENTS

#### A. Test Methods.

1. Test methods identified in Table 2 shall be used to determine certification for ENERGY STAR.

**Table 2: Test Methods for ENERGY STAR Certification**

ENERGY STAR Requirement	Test Method Reference
PM <sub>2.5</sub> CADR and Integrated Energy Factor (IEF)	Appendix FF to Subpart B of Part 430—Uniform Test Method for Measuring the Energy Consumption of Air Cleaners  OR  DOE-approved test procedure waiver pursuant to 10 CFR 430.27
Ozone Generation Reporting	UL 867 Ed. 5.0 <i>Electrostatic Air Cleaners</i>

2. One of the following sampling plans shall be used to test energy performance for certification to ENERGY STAR:
  - i. A single unit is selected, obtained, and tested. The measured performance of this unit and of each subsequent unit manufactured must be equal to or greater than the ENERGY STAR specification requirements. Note that to determine the represented value per 10 CFR 429.68, additional testing outside of ENERGY STAR is required. The represented value must also be equal to or better than the ENERGY STAR specification requirements; or
  - ii. At least two units are selected, obtained and tested. The represented value is calculated from the test results according to the sampling requirements defined in 10 CFR 429.68. The represented value must be equal to or greater than the relevant ENERGY STAR specification requirement. The measured performance (or mean of measured performance) of this unit and of all units sold must be equal to or greater than the ENERGY STAR specification requirements.
3. Represented Value: The represented value is the identical value certified to DOE, listed on the ENERGY STAR QPL, and shown on consumer facing materials.

Results of the tested unit(s) may be used to certify additional individual model variations within a Basic Model as long as the definition for Basic Model provided in Section 1, above, and in 10 CFR 430.2 is met.

4. Significant Digits and Rounding: All calculations shall be carried out as specified in Appendix FF to Subpart B of Part 430 and 10 CFR Part 430.23(hh). Do not round individual test results. Rounding is specified in 10 CFR Part 429.68 for the represented value.

## 5 EFFECTIVE DATE

1. Effective Date: The Version 3.0 ENERGY STAR Room Air Cleaner specification shall take effect on October 9, 2025. To certify for ENERGY STAR, a product model shall meet the ENERGY STAR specification in effect on the model's date of manufacture. The date of manufacture is specific to each unit and is the date on which a unit is considered to be completely assembled.

## 6 FUTURE SPECIFICATION REVISIONS

1. Future Specification Revisions: The EPA reserves the right to change the specification should technological and/or market changes affect its usefulness to consumers, industry, or the environment. In keeping with current policy, revisions to the specification are arrived at through industry discussions. In the event of a specification revision, please note that ENERGY STAR certification is not automatically granted for the life of a product model.