



ENERGY STAR® Program Requirements for Room Air Conditioners

Partner Commitments

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

Qualifying Products

1. Comply with current ENERGY STAR Eligibility Criteria, which define performance requirements and test procedures for room air conditioners. A list of eligible products and their corresponding Eligibility Criteria can be found at www.energystar.gov/specifications.
2. Obtain certification of ENERGY STAR qualification from a Certification Body recognized by EPA for room air conditioners prior to associating the ENERGY STAR name or mark with any product. As part of this certification process, products must be tested in a laboratory recognized by EPA to perform room air conditioner testing.

Using the ENERGY STAR Name and Marks

3. Comply with current ENERGY STAR Identity Guidelines, 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 Identity Guidelines are available at www.energystar.gov/logouse.
4. Use the ENERGY STAR name and marks only in association with qualified products. Partner may not refer to itself as an ENERGY STAR Partner unless at least one product is qualified and offered for sale.
5. Provide clear and consistent labeling of ENERGY STAR qualified room air conditioners.
 - 5.1. The ENERGY STAR mark must be clearly displayed on the top/front of the product (by placement of the ENERGY STAR mark on the Federal Trade Commission's (FTC's) EnergyGuide label, on product labels, and/or as a permanent mark), in product literature (i.e., user manuals, spec sheets, etc.), and on the manufacturer's Internet site where information about ENERGY STAR qualified models is displayed.
 - 5.2. It is also recommended that the mark appear on the product packaging.

Verifying Ongoing Product Qualification

6. Participate in third-party verification testing through a Certification Body recognized by EPA for room air conditioners.
7. Comply with tests that EPA/DOE may conduct at its discretion on products that are referred to as ENERGY STAR qualified. These products may be obtained on the open market, or voluntarily supplied by Partner at the government's request.

Providing Information to EPA

8. Provide unit shipment data or other market indicators to EPA annually to assist with creation of ENERGY STAR market penetration estimates, as follows:

- 8.1. Partner must submit the total number of ENERGY STAR qualified room air conditioners 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).
- 8.2. Partner must provide unit shipment data segmented by meaningful product characteristics (e.g., type, capacity, presence of additional functions) as prescribed by EPA.
- 8.3. 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. Any information used will be masked by EPA so as to protect the confidentiality of the Partner;

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

Performance for Special Distinction

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 qualified 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 qualified 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 qualified 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 qualified 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 qualified 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, communicate, and/or promote 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 qualified 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 qualified 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.
- Join EPA's Climate Leaders Partnership to inventory and reduce greenhouse gas emissions. Through participation, companies create a credible record of their accomplishments and receive EPA recognition as corporate environmental leaders. For more information on Climate Leaders, visit www.epa.gov/climateleaders.
- 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.



ENERGY STAR® Program Requirements Product Specification for Room Air Conditioners

Eligibility Criteria DRAFT Version 2.1

Following is the **Version 2.1** product specification for ENERGY STAR qualified room air conditioners. A product shall 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. **Room Air Conditioner (RAC):** A room air conditioner is a consumer product that delivers conditioned air to an enclosed space. It is designed for mounting in a window or through the wall and includes a source of refrigeration and may include a means for ventilating and/or heating.
- B. **Packaged Terminal Air Conditioner (PTAC):** PTACs include self-contained air conditioning units and may connect to an external heating system or may include electrical resistance heating. PTACs are not covered under the RAC product classes listed in the National Appliance Energy Conservation Act.
- C. **Through the Wall (TTW) Air Conditioner:** Room air conditioner units without louvered sides are also referred to as “through the wall” (“TTW”) units. These units may also be referred to as “built-in” units.
- D. **Casement-only:** Refers to a RAC designed for mounting in a casement window with an encased assembly with a width of 14.8 inches or less and a height of 11.2 inches or less.
- E. **Casement-slider:** Refers to a RAC with an encased assembly designed for mounting in a sliding or casement window with a width of 15.5 inches or less.
- F. **Reverse Cycle:** The heating function found in certain room air conditioner models.
- G. **Product Family:** A group of models sufficiently similar that the energy performance of all members may be predicted from the energy performance of a platform model. Generally, this will be a regular range of sizes of a similar type, design and construction, and having a common designation as catalogued. Differentiators for product families include brand name and control panel configuration.
- H. **Energy Efficiency Ratio:** The Energy Efficiency Ratio (“EER”) is the ratio of the cooling effect measured in BTU per hour divided by the electrical energy input in measured Watts.

2) **Scope:**

- A. **Included Products:** Products that meet the definition of a room air conditioner as specified herein are eligible for ENERGY STAR qualification. Specifically, the following product types are eligible: louvered and non-louvered reverse-cycle RACs (or heat pump RACs), window RACs, through-the-wall RACs and casement and slider-casement RAC products.
- B. **Excluded Products:** PTACs, portable air conditioners, and models with electric resistance heat are not eligible for ENERGY STAR.

3) Qualification Criteria:

A. Energy Efficiency Requirements:

Table 1: TTW Units		
Capacity (BTU/hour)	ENERGY STAR EER (with louvered sides)	ENERGY STAR EER (without louvered sides)
< 6,000	≥ 10.7	≥ 9.9
6,000 to 7,999		
8,000 to 13,999	≥ 10.8	≥ 9.4
14,000 to 19,999	≥ 10.7	
≥ 20,000	≥ 9.4	

Table 2: Casement Units	
Casement Type	ENERGY STAR EER
Casement-Only	≥ 9.6
Casement-Slider	≥ 10.5

Table 3: Reverse Cycle Units		
Capacity (BTU/hour)	ENERGY STAR EER (with louvered sides)	ENERGY STAR EER (without louvered sides)
< 14,000		≥ 9.4
≥ 14,000		≥ 8.8
< 20,000	≥ 9.9	
≥ 20,000	≥ 9.4	

B. Significant Digits and Rounding:

- a. All calculations shall be carried out with actual measured or observed values. Only the final result of a calculation shall be rounded. Calculated results shall be rounded to the nearest significant digit as expressed in the corresponding specification limit.
- b. Unless otherwise specified, compliance with specification limit shall be evaluated using exact values without any benefit from rounding.

Note: Model numbers used for ENERGY STAR qualified products shall follow FTC and DOE guidelines.

4) Test Requirements:

A. Representative Models shall be selected for testing per the following requirements:

- a. For qualification of an individual product model, the representative model shall be equivalent to that which is intended to be marketed and labeled as ENERGY STAR.
- b. For qualification of a product family, the representative (i.e., platform) model shall not differ from any other model within that product family in regards to efficiency characteristics.

B. When testing room air conditioners, the following test methods shall be used to determine ENERGY STAR qualification:

Table 4: Test Methods for ENERGY STAR Qualification	
ENERGY STAR Requirement	Test Method Reference
EER	10 CFR 430, Subpart B, Appendix F

- 5) **Effective Date:** The ENERGY STAR Room Air Conditioner specification shall take effect on **November 16, 2005**. To qualify for ENERGY STAR, a product model shall meet the ENERGY STAR specification in effect on the date of manufacture. The date of manufacture is specific to each unit and is the date (e.g., month and year) on which a unit is considered to be completely assembled.
- 6) **Future Specification Revisions:** EPA reserves the right to change the criteria 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 qualification is not automatically granted for the life of a product model.