



# ENERGY STAR® Program Requirements for Furnaces

## 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

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1. Comply with current ENERGY STAR Eligibility Criteria, which define performance requirements and test procedures for furnaces. 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 qualification from a Certification Body recognized by EPA for furnaces. As part of this certification process, products must be tested in a laboratory recognized by EPA to perform furnace 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 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](http://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 in the U.S. and/or ENERGY STAR partner countries.
5. Provide clear and consistent labeling of ENERGY STAR qualified furnaces.
  - 5.1. The ENERGY STAR mark must be clearly displayed on the 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 top/front of the product and on the product packaging.

### Verifying Ongoing Product Qualification

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6. Participate in third-party verification testing through a Certification Body recognized by EPA for furnaces, providing full cooperation and timely responses. EPA/DOE may also, at its discretion, conduct tests 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

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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 qualified furnaces 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 My ENERGY STAR Account tool (MESA) available at [www.energystar.gov/mesa](http://www.energystar.gov/mesa).

### **Training and Consumer Education**

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10. Partner shall comply with the following, product-specific requirements concerning training and education:
  - 10.1. Offer and encourage training to distributors and/or contractors on the following issues: system venting, condensate removal, code compliance, and proper use of the Manual J calculation, or other equivalent calculation, in order to encourage proper sizing of equipment.

### **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 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, 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 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](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® Program Requirements Product Specification for Furnaces

### Eligibility Criteria Version 2.0

Below is the **Version 2.0** product specification for ENERGY STAR qualified furnaces. A product must meet all of the identified criteria to earn the ENERGY STAR. Please note that this specification is intended for furnaces installed and used in residences.

1) Definitions: Below are the definitions of the relevant terms in this document.

A. Furnace: A heating unit with a heat input rate of less than 225,000 Btu per hour whose function is the combustion of fossil fuel for space heating with forced hot air. Unit must include burner(s), heat exchanger(s), blower(s) and connections to heating ducts. A heating unit that meets this definition and also provides hot water for domestic or other use may be considered a furnace for purposes of this agreement.

B. AFUE: The Annual Fuel Utilization Efficiency ("AFUE") measures the amount of fuel converted to space heat in proportion to the amount of fuel entering the furnace. This is commonly expressed as a percentage. For purposes of this agreement, the efficiency of a furnace shall be measured using AFUE. Test procedures have been developed to test AFUE by the Department of Energy (DOE). These procedures are specified in 10 Code of Federal Regulations (CFR) part 430, Appendix N.

C. Manufacturer Limited Warranty: For purposes of this agreement, a manufacturer limited warranty is an assurance by the Partner that purchased system equipment and components are warranted by the manufacturer for a period of time. The period of time is typically expressed in numbers of years.<sup>1</sup> The exact terms of the limited warranty shall be determined by the Partner.

2) Qualifying Products: Any furnace that meets the definition in Section 1A is eligible for ENERGY STAR qualification.

3) Energy-Efficiency Specifications: Only those products listed in Section 2 that meet the following Tier I and Tier II criteria may qualify as ENERGY STAR. Proposed effective dates for Tiers I and II are covered in Section 5 of this specification.

Tier I

A. Gas furnace models:  $\geq 90\%$  AFUE rating

B. Oil furnace models:  $\geq 83\%$  AFUE rating

In addition Partner will:

- Include a manufacturer limited warranty with its qualified furnace models.
- Consider using high efficiency electric blower motors with its qualified furnace models.

<sup>1</sup> At the time of writing, a manufacturer limited warranty is typically 20 years for the heat exchanger(s).

## Tier II

A. Gas furnace models:  $\geq 90\%$  AFUE rating and TBD requirement for electrical efficiency

B. Oil furnace models:  $\geq 85\%$  AFUE rating and TBD requirement for electrical efficiency

In addition Partner will:

- Include a manufacturer limited warranty with its qualified furnace models.
- 4) Test Criteria: Manufacturers are required to perform tests and self-certify those product models that meet the ENERGY STAR guidelines. Partner agrees to measure a furnace model's energy-efficiency using the test conditions as specified in 10 CFR Part 430, Appendix N.
- 5) Effective Date: The date that manufacturers may begin to qualify products as ENERGY STAR, under this Version 2.0 specification, will be defined as the *effective date* of the agreement. Any previously executed agreement on the subject of ENERGY STAR qualified furnaces shall be terminated effective October 26, 2006.
- A. Qualifying Products Under Tier I of the Version 2.0 Specification: The first phase of this specification is proposed to commence on **October 27, 2006**. All products, including models originally qualified under Version 1.3, with a **date of manufacture** on or after **October 27, 2006**, must meet the new (Version 2.0) requirements in order to qualify for ENERGY STAR. The **date of manufacture** is specific to each unit and is the date (e.g., month and year) of which a unit is considered to be completely assembled.
- B. Qualifying Products Under Tier II of the Version 2.0 Specification: The second phase of this specification, Tier II, is proposed to commence on **October 1, 2008**. All products, including models originally qualified under Tier I, with a **date of manufacture** on or after **October 1, 2008**, must meet the Tier II requirements in order to qualify for ENERGY STAR.
- C. EPA will not allow grandfathering under this Version 2.0 ENERGY STAR specification. **ENERGY STAR qualification under previous Versions is not automatically granted for the life of the product model**. Therefore, any product sold, marketed, or identified by the manufacturing partner as ENERGY STAR must meet the current specification in effect at the time of manufacture of the product.
- 6) Future Specification Revisions: EPA reserves the right to revise the specification should technological and/or market changes affect its usefulness to consumers or industry or its impact on the environment. In keeping with current policy, revisions to the specification will be discussed with stakeholders.