



# ENERGY STAR<sup>®</sup> Program Requirements for Clothes Washers

## Partner Commitments

### Commitment

The following are the terms of the ENERGY STAR Partnership Agreement as it pertains to the manufacturing of ENERGY STAR qualified clothes washers. The ENERGY STAR PARTNER must adhere to the following program requirements:

- Comply with current ENERGY STAR Eligibility Criteria, defining the performance criteria that must be met for use of the ENERGY STAR certification mark on clothes washers and specifying the testing criteria for clothes washers. At its discretion, DOE may 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 DOE's request;
- Comply with current ENERGY STAR Logo Use Guidelines, describing how the ENERGY STAR labels and name may be used. PARTNER is responsible for adhering to these guidelines and for ensuring that its authorized representatives, such as advertising agencies, dealers, and distributors, are also in compliance;
- Qualify at least one ENERGY STAR labeled clothes washer model within one year of activating the clothes washers portion of the agreement. When PARTNER qualifies the product, it must meet the specification in effect at that time;
- Provide clear and consistent labeling of ENERGY STAR qualified clothes washers. The ENERGY STAR label must be clearly displayed on the top/front of the product (by placement of the ENERGY STAR logo on the FTC's EnergyGuide label, on product labels, and/or as a permanent mark), on the manufacturer's Internet site where information about ENERGY STAR qualified models is displayed, and in product literature (i.e., user manuals, spec sheets, etc.). It is also recommended that the label appear on product packaging;
- Provide to DOE, on an annual basis, an updated list of ENERGY STAR qualifying clothes washer models. Once the PARTNER submits its first list of ENERGY STAR labeled clothes washer models, the PARTNER's company name will be listed as an ENERGY STAR PARTNER. PARTNER must provide annual updates in order to remain on the list of participating product manufacturers;
- Notify DOE of a change in the designated responsible party or contacts for clothes washers within thirty days.

## Performance for Special Distinction

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

- Consider energy efficiency improvements in company facilities and pursue the ENERGY STAR label for buildings;
- Purchase ENERGY STAR labeled products. Revise the company purchasing or procurement specifications to include ENERGY STAR. Provide procurement officials' contact information to DOE for periodic updates and coordination. Circulate general ENERGY STAR labeled product information to employees for use when purchasing products for their homes;
- Ensure the power management feature is enabled on all ENERGY STAR qualified monitors 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 labeled product models;
- Feature the ENERGY STAR label(s) on PARTNER web site and in other promotional materials. If information concerning ENERGY STAR is provided on the PARTNER web site, DOE may provide links where appropriate to the PARTNER web site;
- Provide a simple plan to DOE outlining specific measures PARTNER plans to undertake beyond the program requirements listed above. By doing so, DOE may be able to coordinate, communicate, and/or promote PARTNER's activities, provide a DOE representative, or include news about the event in the ENERGY STAR newsletter, on the ENERGY STAR web pages, etc. The plan may be as simple as providing a list of planned activities or planned milestones for which the PARTNER would like DOE to be aware. For example, activities may include:
  - (1) Increase the availability of ENERGY STAR labeled products by converting the entire product line within two years to meet ENERGY STAR guidelines;
  - (2) Demonstrate the economic and environmental benefits of energy efficiency through special in-store displays twice a year;
  - (3) Provide information to users (via the web site and user's manual) about energy-saving features and operating characteristics of ENERGY STAR qualified products, and
  - (4) Build awareness of the ENERGY STAR Partnership and brand identity by collaborating with DOE on one print advertorial and one live press event;
- Provide quarterly, written updates to DOE 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.



# ENERGY STAR® Program Eligibility Criteria for Clothes Washers

Below are the product criteria for ENERGY STAR qualified clothes washers. A product must meet all of the identified criteria to be labeled as ENERGY STAR qualified by its manufacturer.

1) Definitions

- a) Modified Energy Factor (MEF): The present energy efficiency measure for all clothes washers. MEF is the quotient of the cubic foot capacity of the clothes container divided by the total clothes washer energy consumption per cycle, with such energy consumption expressed as the sum of the machine electrical energy consumption, the hot water energy consumption, and the energy required for removal of the remaining moisture in the wash load. The units are cubic feet per kWh per cycle (ft<sup>3</sup>/kWh/cycle). The higher the value, the more efficient the clothes washer. MEF must be determined by the J1 test procedure (see below).
- b) Water Factor (WF): The present water efficiency calculation that allows the comparison of clothes washer water consumption independent of clothes washer capacity. The term is expressed as gallons per cycle per cubic feet. WF is the quotient of the total weighted per-cycle water consumption divided by the capacity of the clothes washer. The lower the value, the more efficient the clothes washer. Manufacturers are requested to report WF for ENERGY STAR models. However, the WF has not been incorporated into the federal standard or the ENERGY STAR criteria.
- c) Energy Factor (EF): The previous energy efficiency measure for conventional clothes washers. It is the quotient of the cubic foot capacity of the clothes container divided by the sum of the electrical energy for the mechanical action of a cycle and the water heating energy required for a cycle. The water heating energy may be from a gas or electric water heater. The units are cubic feet per kWh per cycle (ft<sup>3</sup>/kWh/cycle). The higher the value, the more efficient the clothes washer. The use of Energy Factor was discontinued on January 1, 2004.

2) Qualifying Products: The current DOE federal standard (NAECA) for clothes washers includes five product classes:

- i) Top-loading < 1.6 ft<sup>3</sup> (compact)
- ii) Top-loading ≥ 1.6 ft<sup>3</sup> (standard)
- iii) Top-loading/semi automatic
- iv) Front-loading
- v) Suds-saving

Only standard sized (> 1.6ft<sup>3</sup>), front- or top-loading clothes washers are eligible for the ENERGY STAR clothes washer program.

3) ENERGY STAR Criteria: Only those products listed in Section 2 that meet the criteria below may qualify as ENERGY STAR.

| Product Type          | Previous Criteria | Current Criteria<br>(as of January 1, 2004) | January 1, 2007 |
|-----------------------|-------------------|---|-----------------|
| ENERGY STAR           | MEF ≥ 1.26        | MEF ≥ 1.42                                  | TBD             |
| Federal-top loading   | EF* ≥ 1.18        | MEF ≥ 1.04                                  | MEF ≥ 1.26      |
| Federal-front loading | NA                |   |                 |

<sup>1</sup>MEF = modified energy factor

<sup>2</sup>EF = energy factor, use of this term was discontinued on January 1, 2004

- 4) Test Criteria: Clothes washer manufacturers must self-test their equipment according to the DOE test procedure defined in 10 CFR 430, Subpart B, Appendix J1. The J1 includes test provisions for machines with Adaptive Water Fill Control Systems (AWFCS). This control scheme determines automatically the amount of water used to wash a load based on the size and weight of the particular clothing load. MEF must be determined by the J1 test procedure.
- 5) Effective Date: The date that manufacturers may begin to qualify products as ENERGY STAR will be defined as the *effective date* of the agreement. A manufacturer has one year after signing the Partnership Agreement to ensure that the ENERGY STAR label appears directly on at least one ENERGY STAR qualified clothes washer model.
- 6) Future Criteria Revisions: ENERGY STAR reserves the right to change the specification should technological and/or market changes affect its usefulness to consumers, industry, or the environment. Keeping with current policy, industry/stakeholder discussions determine revisions to the criteria.