ENERGY STAR® Program Requirements for Water Coolers

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 water coolers. 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 water coolers 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 water cooler

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 water coolers.

    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.), 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 water coolers.
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 water coolers 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 Water Coolers

Eligibility Criteria
DRAFT Version 1.3

Following is the **Version 1.3** product specification for ENERGY STAR qualified water coolers. 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. Water Cooler: A freestanding device that consumes energy to cool and/or heat water for human consumption.

a. Cold Only Units: These units dispense cold water only. These units have a refrigeration cycle.

b. Hot and Cold Units: These units dispense both hot and cold water. Some units may have a third room-temperature tap. These units have both an electric resistance heater and a refrigeration cycle.

c. Cook and Cold Units: These units dispense both cold and room-temperature water. These units have a refrigeration cycle

B. Compartment-Type Bottled Water Cooler: A bottled water cooler which, in addition to the primary function of cooling and dispensing potable water, includes a refrigerated compartment with or without provisions for making ice.

C. Standby Energy Consumption: The required energy to maintain cold and/or hot water at appropriate dispensing temperatures with no water being withdrawn.

2) Scope:

A. Included Products: Products that meet the definitions of a Water Cooler as specified herein are eligible for ENERGY STAR qualification, with the exception of products listed in Section 2.B. Both bottled (including compartment-type) and bottle-less water cooler types are covered under this specification. Bottle-less water coolers include Point-of-Use (POU) and air-source water generating units.

B. Excluded Products: Units that provide pressurized water and are not free standing (i.e., wall mounted, under sink, or otherwise building integrated) are not eligible for ENERGY STAR.

3) Qualification Criteria:

A. Energy and Water Consumption Requirements:

Table 1: Energy-Efficiency Criteria for ENERGY STAR Qualified Water Coolers

Water Cooler Category	Standby Energy Use Under Test Conditions
Cold only and cook and cold units	≤ 0.16 kWh/day
Hot and cold units	≤ 1.20 kWh/day

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 limits shall be evaluated using exact values without any benefit from rounding.

4) Test Requirements:

A. Representative Models shall be selected for testing. The representative model shall be equivalent to that which is intended to be marketed and labeled as ENERGY STAR. Qualification based on product family is not acceptable under this specification. Each individual model shall be tested and meet the requirements of this specification to be qualified as ENERGY STAR.

B. When testing water coolers, the following test methods shall be used to determine ENERGY STAR qualification:

Table 2: Test Methods for ENERGY STAR Qualification

ENERGY STAR Requirement	Test Method Reference
Standby Energy Use	ENERGY STAR Test Method for Water Coolers

5) Effective Date: The ENERGY STAR Water Cooler Specification shall take effect effect on **January 22, 2010**.To qualify for ENERGY STAR, a product model shall meet the ENERGY STAR specification in effect on its 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 complete assembled.

6) Future Specification Revisions: 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 the ENERGY STAR qualification is not automatically granted for the life of a product model.

ENERGY STAR® Program Requirements Product Specification for Water Coolers

Test Method

1) OVERVIEW

The following test method shall be used for determining product compliance with requirements in the ENERGY STAR Product Specification for Water Coolers.

2) APPLICABILITY

This test protocol is applicable for the evaluation of standby power consumed by bottled and bottle-less water coolers.

3) DEFINITIONS

Unless otherwise specified, all terms used in this document are consistent with the definitions contained in the ENERGY STAR Product Specification for Water Coolers.

4) TEST CONDITIONS AND METHOD

Test conditions are described below. Tests shall focus on overall standby losses and water shall not be withdrawn during the testing procedure. Standby conditions under manufacturer control during the test period shall mimic conditions that the unit will experience during typical use. All temperature and other settings shall be the same as when the unit will be shipped.

A. Power Measurement: Energy use shall be measured as the total true power (kilowatt-hours) consumed in one 24-hour period. The Wattmeter used to measure the power consumption shall have a minimum resolution of 1 Watt and precision +/- 2%.

B. Starting Conditions: Before the power measurements are recorded, the unit shall be at operating conditions, with water temperatures as defined in item (F) below.

C. Water Withdrawal: No water may be withdrawn from the unit during the test.

D. Timer Usage: If the unit has an integral, automatic timer, occupancy sensor, or other feature designed to reduce the number of hours during the day the unit is running, the unit shall be tested with these features enabled only if the unit is shipped with these features enabled.

E. Ambient Temperature: Ambient air temperature must be $75^{o} \pm 2^{o}F$ [$23.8 \pm 1.2^{o}C$].

F. Dispensed Water Temperatures: Cold water temperature shall not exceed $50^{o}F$ [$10.0^{o}C$] and hot water temperature shall be at least $165^{o}F$ [$73.9^{o}C$]. These temperatures shall be measured before conducting the standby energy use test described in this specification when the respective function, compressor, or heating element turns on. The unit shall not be turned off, or have any settings adjusted at any time during the test. The cold and hot water temperature settings used during the test shall be the default settings at which the unit is shipped. Units designed to provide hot or cold

water on demand, as opposed to maintaining a supply of hot or cold water, shall provide water meeting these temperature requirements within three minutes of a user calling for hot or cold water.

G. Cooler Location: The unit shall be no more than 6 inches (152 mm) from a wall at least 7 feet (2,134 mm) high and extending horizontally at least 2 feet (610 mm) from each side of the unit.

H. Airflow: Airflow around the unit shall be natural; no artificial means of increasing the airflow are permitted. Airflow created by components integral to the unit itself, such as internal fans, are permitted.

I. Compartment Temperature: If the unit being tested is a compartment-type water cooler, during the test, there shall be no melting of ice, nor shall the average temperature exceed 46.0 ^{o}F [7.8 ^{o}C] in the refrigerated compartment[1].

J. Dual-configuration Units: Water coolers that can serve as both a bottled unit and a POU, depending on the configuration as shipped by the manufacturer, shall be tested in each configuration. That is, the unit shall be tested both in the bottled water configuration and the POU configuration, and have the results from both tests meet the ENERGY STAR Product Specification for Water Coolers.

[1] ARI 2002 Standard 1010 for Self-Contained Mechanically-Refrigerated Drinking-Water Coolers