ENERGY STAR® Program Requirements for Commercial Hot Food Holding Cabinets

Version 2.0
Partner Commitments
DRAFT 1

Commitment

The following are the terms of the ENERGY STAR Partnership Agreement as it pertains to the manufacturing of ENERGY STAR qualified commercial hot food holding cabinets. 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 commercial hot food holding cabinets and specifying the testing criteria for commercial hot food holding cabinets. EPA may, 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 EPA's request;
- comply with current ENERGY STAR Identity Guidelines, describing how the ENERGY STAR marks 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 commercial hot food holding cabinet product within six months of activating a Partnership Agreement. When Partner qualifies a product, it must meet the specification in effect at that time;
- provide clear and consistent labeling of ENERGY STAR qualified commercial hot food holding cabinets. The ENERGY STAR mark must be clearly displayed on the front/inside of the product, on the product packaging, 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;
- provide to EPA, on an annual basis, an updated list of ENERGY STAR qualifying commercial hot food holding cabinet models. Once the Partner submits its first list of ENERGY STAR qualified products, the Partner will be listed as an ENERGY STAR Partner. Partner must provide annual updates in order to remain on the list of participating product manufacturers;
- provide to EPA, on an annual basis, unit shipment data or other market indicators to assist in determining the market penetration of ENERGY STAR. Specifically, Partner must submit the total number of ENERGY STAR qualified commercial hot food holding cabinet models shipped (in units, by model) or an equivalent measurement as agreed to in advance by EPA and Partner. Partner is also encouraged to provide ENERGY STAR qualified unit shipment data segmented by meaningful product characteristics (e.g., capacity, size, or other as relevant), total unit shipments for each model in its product line, and percent of total unit shipments that qualify as ENERGY STAR. The data for each calendar year should be submitted to EPA, preferably in electronic format, no later than the following March and may be provided directly from the Partner or through a third party. Any information used will be masked by EPA so as to protect the confidentiality of the Partner; and
- notify EPA of a change in the designated responsible party or contacts for commercial hot food holding cabinets within 30 days.

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:

- consider energy efficiency improvements in company facilities and pursue the ENERGY STAR mark for buildings;
- 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;
- 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 product models;
- feature the ENERGY STAR mark(s) on Partner Web site and in other promotional materials. If information concerning ENERGY STAR is provided on the Partner Web site as specified by the ENERGY STAR Web Linking Policy (this document can be found in the Partner Resources section on the ENERGY STAR Web site at www.energystar.gov), EPA may provide links where appropriate to the Partner Web site;
- 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 Web pages, etc. The plan may be as simple as providing a list of planned activities or planned milestones of which the Partner would like EPA 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 EPA on one print advertorial and one live press event;
- 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;
- join EPA's SmartWay Transport Partnership to improve the environmental performance of the company's shipping operations. SmartWay Transport 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; and
- 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; visit www.epa.gov/grnpower.

ENERGY STAR® Program Requirements for Commercial Hot Food Holding Cabinets

Version 2.0 Eligibility Criteria DRAFT 1

Below is the **DRAFT 1** Version 2.0 ENERGY STAR Commercial Hot Food Holding Cabinets specification. A product must meet all of the identified criteria if it is to earn the ENERGY STAR.

I. Definitions

A. Commercial Hot Food Holding Cabinet: A heated, fully enclosed compartment with one or more solid or partial glass doors that is designed to maintain the temperature of hot food that has been cooked using a separate appliance.

Note: EPA updated the definition of commercial hot food holding cabinets to be consistent with definitions as published in state appliance standards and regulations.

B. Idle Energy Rate–Dry: The rate of appliance energy consumption while it is maintaining or holding at the control set point, without using a humidity-generating device (if applicable). For purposes of this specification, idle energy rate is measured in watts per cubic feet.

II. Qualifying Products

Any commercial hot food holding cabinet that meets the definition in Section 1.A is eligible for the ENERGY STAR. Dual function equipment, such as cook-and-hold models, and drawer warmers, cannot qualify as ENERGY STAR under this specification. This specification is intended for commercial food-grade equipment only.

III. Energy Efficiency Criteria

Commercial hot food holding cabinets must meet the maximum idle energy consumption rate requirements provided in Table 1 below to qualify as ENERGY STAR.

The maximum idle energy consumption rate, in watts, shall be based on the test procedure described in ASTM F2140-01, Section 10.5 “Idle Energy Rate—Dry.” Interior volume in cubic feet, noted as “*V*” in Table 1, of each qualifying model must be measured according to the protocol provided in Section IV.B.

Table 1: Maximum Idle Energy Consumption Rate Requirements for ENERGY STAR Qualified Commercial Hot Food Holding Cabinets

Product Volume (Cubic Feet)	Product Idle Energy Consumption Rate (Watts)
$0 < V < 13$	$\leq 22\ V$
$13 \leq V < 28$	$\leq 3.3\ V + 243.5$
$28 \leq V$	$\leq 1.3\ V + 300$

Note: V = Interior volume in cubic feet (ft^3).

Note: The primary objective of ENERGY STAR is to recognize the most energy-efficient products in the marketplace. In developing this specification, EPA considered the following criteria:
• Significant energy savings can be realized on a national basis

• Product performance is maintained or enhanced with increased efficiency
• Purchase of high efficiency product will be cost effective
• Energy efficiency can be achieved through several technology options
• Energy consumption and performance can be measured and verified with testing
• Labeling would effectively differentiate products and be visible for purchasers.

Major revisions to the current specification have not been made since it was finalized in 2003. Currently, ENERGY STAR qualified hot food holding cabinets represent approximately 80% of the overall marketplace. EPA expects that this percentage will continue to increase as a result of new federal and state regulations currently being considered. At this time, several states have already adopted the ENERGY STAR Version 1.0 requirement of 40 watts per cubic foot as their minimum efficiency standard for commercial hot food holding cabinets.

When revising a specification, EPA aims to represent the top 25% of performers in the marketplace. The performance levels proposed in Table 1 represent approximately 25% of models currently available on the market and are based primarily on the ENERGY STAR Qualifying Product List.

Based on stakeholder feedback, EPA is proposing to modify the energy efficiency criteria for commercial hot food holding cabinets based on volume. The existing specification established a performance requirement that varied as a function of volume, but was based on a single line fit to the data such that approximately 25% of models overall would qualify. Analysis of our current data set indicates that smaller units have a greater challenge in qualifying using this approach. Accordingly, in the revised specification, EPA divided up the dataset based on the volume ranges as suggested by stakeholders during the Webinar held on December 9, 2009. Using these industry recommended size bins, EPA set proposed efficiency requirements such that roughly 25% of models in each size category could qualify. EPA also made sure that multiple manufacturers were represented within each size category to allow for adequate choice for purchasers. In all cases, this new approach is more stringent than the Version 1.0 specification. EPA understands that the proposed volume categorizations correspond to functional categorizations for this equipment, such as half-, full-, and banquet-sized equipment.

Stakeholders are encouraged to provide comments on these volume categorizations as well as the proposed new levels.

IV. Test Criteria

Partners are required to perform tests and self-certify those products that meet the ENERGY STAR guidelines. Test results must be reported to the EPA using the Commercial Hot Food Holding Cabinet Qualifying Product Information (QPI) Form. In addition to the QPI form, original test reports and product specification sheets are required to be submitted for each qualifying product model. Manufacturers may report the as-tested model number and any associated model number variations using one QPI Form **only** if the model number variations represent differences that do not affect the energy performance of the model (e.g., color, finish, shelf configurations).

Note: In order to align with other product categories and in light of ongoing enhancements to the ENERGY STAR products program as outlined in the *Enhanced Program Plan for ENERGY STAR Products*, dated December 2, 2009, EPA is proposing to require manufacturing partners to individually test and submit product data for each qualifying product model. Under the current specification, test results for the smallest unit, which yields the highest idle energy rate, may be used for ENERGY STAR qualification of an entire product family, representing a variety of volumes. EPA is proposing this new requirement in order to ensure that test data displayed on the Qualifying Product List on the ENERGY STAR Web site accurately represent actual product performance and to prevent end-user confusion on the energy consumption of a particular model. The ENERGY STAR program is committed to ensuring that qualified products deliver on their promised savings.

Under this specification, manufacturers may still test and report one model representing a number of different model numbers, provided that the model number variations represent differences that do not affect the energy performance of the model.

A. Measuring Idle Energy Consumption Rate: In performing these tests, partners are required to measure a model's energy performance using ASTM Standard F2140-01, *Standard Test Method for the Performance of Hot Food Holding Cabinets*. Partners are required to test for the Idle Energy Rate-Dry Test as described in Section 10.5 of the ASTM test procedure.

B. Measuring Interior Volume: Commercial hot food holding cabinet interior volume shall be calculated using straight-line segments following the gross interior dimensions of the appliance and using **Equation 1** below. Interior volume shall not account for racks, air plenums or other interior parts.

Equation 1: *Interior Volume = Interior Height x Interior Width x Interior Depth*

V. Effective Date

The date that products must meet the requirements specified under the Version 2.0 Commercial Hot Food Holding Cabinet specification will be defined as the effective date of the agreement. Any previously executed agreement on the subject of ENERGY STAR qualified commercial hot food holding cabinet products shall be terminated effective **February 1, 2011** for products eligible under the Version 1.0 Program Requirements for Commercial Hot Food Holding Cabinets.

Note: EPA anticipates finalizing the Version 2.0 specification by April 2010. The proposed Version 2.0 effective date of February 1, 2011 would allow stakeholders time to transition collateral material prior to the new specification taking effect.

A. Elimination of Grandfathering: EPA will not allow grandfathering under this Version 2.0 ENERGY STAR specification. ENERGY STAR qualification under Version 1.0 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 specification in effect on the date of manufacture of the product.

VI. 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. In the event of a specification revision, please note that ENERGY STAR qualification is not automatically granted for the life of a product model. To qualify as ENERGY STAR, a product must meet the ENERGY STAR specification in effect on the date of manufacture of the product.

Note: EPA is interested in receiving idle energy rate product data from stakeholders for other relevant commercial hot food holding equipment not currently covered under this specification, specifically proofing ovens and other humidity based holding cabinets that should be tested to the Idle Energy Rate-Wet Test as described in Section 10.6 of the ASTM Standard F2140-01. Currently, ENERGY STAR has no product data on these equipment types and, therefore, is not able to include specific requirements for them in this specification. EPA encourages manufacturers to submit additional test results to EPA for consideration.