ENERGY STAR® Program Requirements for Commercial Hot Food Holding Cabinets

Version 2.0
Partner Commitments
DRAFT 2

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;

> **Note**: This Partner Commitments section will be expanded in the Final Draft specification to include the new ENERGY STAR testing requirements and other program changes proposed in the Enhanced Program Plan for ENERGY STAR products. EPA will work with interested stakeholders to develop these new requirements. As such, EPA will be hosting a series of stakeholder meetings focused on testing requirements. On April 1, 2010 (11 – 12pm Eastern Time), EPA will host a discussion with all commercial food service manufacturers to discuss this enhancement in detail. Please visit our website at www.energystar.gov/mou for information on the proposed requirements and scheduled meetings.

- 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 2

Below is the **DRAFT 2** Version 2.0 ENERGY STAR Commercial Hot Food Holding Cabinet specification. A product must meet all of the identified criteria if it is to earn the ENERGY STAR.

1) Definitions

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

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.

C. Drawer Warmer: An appliance that consists of one or more heated drawers and that is designed to hold hot food that has been cooked in a separate appliance at a specified temperature.

D. Heated Glass Merchandising Cabinets: An appliance with a heated compartment that is designed to display and maintain the temperature of hot food that has been cooked in a separate appliance.

E. Cook-and-Hold Appliance: A multiple-mode appliance intended for cooking food that may be used to hold the temperature of the food that has been cooked in the same appliance.

Note: Based on stakeholder comments, EPA is proposing to update the definition of commercial hot food holding cabinets (HFHCs) by removing the term "partial" when describing door type. EPA's intent is to allow equipment with solid or glass doors to qualify under this specification provided they meet all performance requirements outlined in Sections 2 through 4, below. Additional definitions have been added for products that are NOT eligible for ENERGY STAR under the specification. These equipment types are referenced in Section 2. EPA understands that the ASTM F26.06 task group on commercial HFHCs is proposing to adopt similar definitions for use in the ASTM F2140-01 test standard. EPA will work closely with the ASTM task group to ensure that the definitions presented in this specification and the ASTM test procedure are consistent.

2) 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 (e.g., cook-and-hold), heating glass merchandising cabinets, and drawer warmers are not eligible for ENERGY STAR qualification under this Version 2.0 specification.
Note: This specification is intended for commercial food-grade equipment only.

Note: During the Draft 1 review period, stakeholders were encouraged to submit data on additional types of commercial hot food holding equipment that could be tested to ASTM F2140-01 and are not currently addressed in the Version 1.0 specification. However, EPA did not receive any additional data points for consideration. Therefore, the scope of this specification continues to be limited to only those products that meet the definition of a commercial HFHC, presented in Section 1.A, above. EPA continues to be interested in reviewing idle energy consumption rate data for other relevant commercial hot food holding equipment, specifically, proofing ovens and other humidity based holding cabinets. In testing these product types, manufacturers should apply the Idle Energy Rate-Wet Test as described in Section 10.6 of the ASTM Standard F2140-01. EPA encourages manufacturers to submit additional test results to EPA for consideration by April 8, 2010.

3) Energy Efficiency Criteria

To qualify for ENERGY STAR, commercial hot food holding cabinets must meet the maximum idle energy consumption rate requirements provided in Table 1, below, based on interior volume (see **Equation 1**).

The maximum idle energy consumption rate, in watts, shall be based on the test procedure referenced below in Section 4.A, below. Interior volume noted as "*V*" in Table 1, must be measured according to the protocol provided in Section 4.B, below, and reported in cubic feet.

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

Product Interior Volume (Cubic Feet)	Product Idle Energy Consumption Rate (Watts)
$0 < V < 13$	$\leq 21.5\ V$
$13 \leq V < 28$	$\leq 4.7\ V + 219.3$
$28 \leq V$	$\leq 1.1\ V + 319.6$

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

Note: The performance levels proposed in Table 1 represent approximately the top 25% of EPA's data set. This data set includes 267 models and represents the most recent ENERGY STAR Qualifying Product List as well as additional data submitted by manufacturers on non-qualifying models. Based on the unit shipment data provided by partners for 2008, we understand that this data set represents a majority of the overall marketplace.

Using industry-recommended size bins, EPA set proposed efficiency requirements that represent roughly the top 25% of available models **in each size category**. EPA has confirmed that the proposed volume categorizations correspond to functional categorizations for this equipment, such as half-, full-, and banquet-sized equipment. In addition, multiple manufacturers offer models that meet the proposed requirements within each size category. Therefore, EPA believes purchasers will have sufficient choice of ENERGY STAR qualifying models in the marketplace that meet their specific needs. It's important to note that in the process of determining the new Version 2.0 requirements, EPA can confirm that the levels presented in Table 1, above, are more stringent than existing Version 1.0 requirements.

One stakeholder asked EPA to consider weighting the data based on sales volume. EPA generally does not consider this for other CFS product categories and does not think this would be necessary as long as the percentages of available models that meet the proposed requirements represent the top quartile of available models within each of the three volume subcategories.

Stakeholders are encouraged to provide comments on these volume categorizations and the proposed new idle energy consumption rate levels by April 8, 2010.

4) Test Criteria

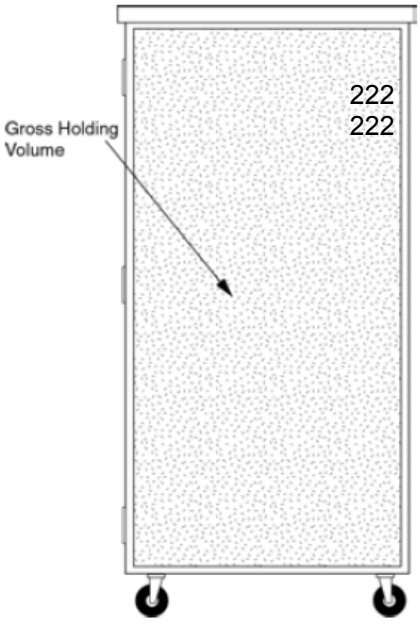
Partners are required to perform tests and self-certify those products that meet the ENERGY STAR guidelines. Test results must be reported to the EPA using the Commercial Hot Food Holding Cabinet Qualifying Product Information (QPI) form. In addition to the QPI form, original test reports and product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

Note: As EPA noted in the January 26 stakeholder meeting, in order to align with other commercial food service specifications, and ongoing enhancements to the ENERGY STAR products program, EPA is proposing this new requirement to ensure that test data displayed on the ENERGY STAR Qualifying Product List accurately reflects product performance. EPA believes this also will prevent end-user confusion regarding the energy consumption of any one particular model. The ENERGY STAR program is committed to ensuring that qualified products deliver on their promised savings.

Under this proposed requirement, manufacturers may still test a representative model and submit several different model numbers using one report and QPI form, provided that the model number variations submitted represent differences that do not affect energy performance such as exterior colors or finishes, shelf configurations, and door opening orientations.

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 use 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*

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 cabinets shall be terminated effective **February 1, 2011** for products eligible under the Version 1.0 Program Requirements for Commercial Hot Food Holding Cabinets.

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.

5) 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.