



# ENERGY STAR® Program Requirements for Commercial Solid Door Refrigerators and Freezers

## Partner Commitments

### Commitment

The following are the terms of the ENERGY STAR Partnership Agreement as it pertains to the manufacturing of ENERGY STAR qualified commercial solid door refrigerators and freezers. 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 solid door refrigerators and freezers and specifying the testing criteria for commercial solid door refrigerators and freezers. 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 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 commercial solid door refrigerator or freezer model within one year of activating the commercial solid door refrigerators and freezers portion of the agreement. When Partner qualifies the product, it must meet the specification (e.g., Tier 1 or 2) in effect at that time;
- provide clear and consistent labeling of ENERGY STAR qualified commercial solid door refrigerators and freezers. The ENERGY STAR label 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 solid door refrigerators and freezers. Once the Partner submits its first list of ENERGY STAR labeled commercial solid door refrigerator and freezer models, 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. Companies that join the program prior to its launch will be added to the Partner List immediately, and, like all other Partners, will have one year to submit a list of qualifying products;
- 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 solid door refrigerators and freezers 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, speed, 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. The 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;

- notify EPA of a change in the designated responsible party or contacts for commercial solid door refrigerators and freezers 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 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 EPA 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 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](http://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 that Partner would like EPA to be aware of. 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.



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### Eligibility Criteria

Below is the product specification (Version 1.1) for ENERGY STAR qualified commercial solid door refrigerators and freezers. A product must meet all of the identified criteria if it is to be labeled as ENERGY STAR by its manufacturer.

- 1) Definitions: Below is a brief description of a commercial solid door refrigerator and commercial solid door freezer and other terms relevant to ENERGY STAR.
  - A. Commercial Refrigerator: A cabinet designed for storing food or other perishable items at temperatures above 32 degrees Fahrenheit (F) but no greater than 40 degrees F.
  - B. Commercial Freezer: A cabinet designed for storing food or other perishable items at temperatures of 0 degrees F or below.
  - C. Commercial Refrigerator-Freezer: A cabinet with two or more compartments, at least one of which is designed for storing food or other perishable items at temperatures above 32 degrees F but no greater than 40 degrees F and at least one of which is designed for storing food or other perishable items at temperatures of 0 degrees F or below.
  - D. Commercial Ice Cream Freezer: A cabinet designed for storing food or other perishable items at temperatures of -5 degrees F or below.
  - E. Commercial Refrigeration Cabinet: A refrigerator, freezer, or refrigerator-freezer for storing food products or other perishable items at specified temperatures and designed for use by commercial or institutional facilities.
  - F. Self-contained Refrigeration Cabinet: A refrigerator, freezer, or refrigerator-freezer which has the condensing unit built into the cabinet.
  - G. Energy Consumption: The energy required to maintain the contents at a specified temperature for a 24-hour period.
  - H. Integrated Average Product Temperature: The integrated average of all test package temperatures, recorded at 15-minute intervals, as determined using the test method prescribed in Section 4, Test Criteria.
  - I. ASHRAE: American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc.
  - J. Worktop Surface: A solid working surface and backsplash. The working surface may be a cutting board, a stainless steel work surface, or a stone slab.
- 2) Qualifying Products: For the purposes of ENERGY STAR, the following types of commercial solid door refrigerators, freezers, and refrigerator-freezers may qualify:
  - A. Reach-in Cabinet: An upright commercial, self-contained refrigeration cabinet with hinged, solid doors but excluding undercounter, roll-in, roll-through, or pass-through cabinets.

B. Undercounter Cabinet: An upright commercial, self-contained refrigeration cabinet with or without a worktop surface (see definition in Section 1) which has hinged, solid doors. In the case where the unit does not have a worktop surface, the unit is intended for installation under a counter. In the case where the unit has a worktop surface, this surface may not add to the total energy consumption of the unit. Preparation tables are not eligible for ENERGY STAR qualification under this specification.

C. Roll-in or Roll-through Cabinet: An upright, self-contained commercial refrigeration cabinet with hinged, solid doors that allows wheeled racks of product to be rolled into or through the refrigerator or freezer.

D. Pass-through Cabinet: An upright commercial, self-contained refrigeration cabinet with hinged, solid doors on both the front and rear of the refrigerator or freezer.

- 3) Energy-Efficiency Specifications for Qualifying Products: Only those products listed in Section 2 that also meet the specifications listed in Table 1 below, may qualify as ENERGY STAR.

<b>Table 1: Specifications for ENERGY STAR Qualified Commercial Solid Door Refrigerators and Freezers</b>	
<b>Product Type</b>	<b>Energy Consumption Under Test Conditions</b>
Refrigerators	$\leq 0.10V + 2.04$ kW-hours/day
Freezers	$\leq 0.40V + 1.38$ kW-hours/day
Refrigerator-Freezers	$\leq 0.27AV - 0.71$ kW-hours/day
Ice Cream Freezers	$\leq 0.39V + 0.82$ kW-hours/day

Note: V = Internal volume in ft<sup>3</sup>

AV = Adjusted volume = (1.63 x freezer volume in ft<sup>3</sup>) + refrigerator volume in ft<sup>3</sup>

- 4) Test Criteria: Manufacturers are required to perform tests to self-certify those product models that meet the ENERGY STAR guidelines. The test results must be reported to EPA using the Commercial Solid Door Refrigerator and Freezer Qualifying Product Form.

In performing these tests, manufacturers must use ASHRAE Standard 72-2005, "Method of Testing Commercial Refrigerators and Freezers," to measure the daily energy consumption of commercial solid door refrigerators and freezers with the following temperature specifications:

<b>Product Type:</b>	<b>Integrated average product temperature:</b>
Commercial solid-door refrigerator	38 degrees ± 2 degrees F
Commercial solid-door freezer	0 degrees ± 2 degrees F
Commercial ice cream cabinet	-5 degrees ± 2 degrees F

- 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. The ENERGY STAR for Commercial Solid Door Refrigerators and Freezers Specification (Version 1.1) is effective on September 1, 2001.
- 6) Future Specification Revisions: ENERGY STAR reserves the right to revise the specifications should technological and/or market changes affect its usefulness to purchasers, industry, or the environment. In keeping with current policy, revisions to the specification are arrived at through discussions with industry.