



# ENERGY STAR® Program Requirements for Commercial Griddles

## 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

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1. Comply with current ENERGY STAR Eligibility Criteria, which define performance requirements and test procedures for commercial griddles. A list of eligible products and their corresponding Eligibility Criteria can be found at [www.energystar.gov/specifications](http://www.energystar.gov/specifications).
2. Obtain certification of ENERGY STAR qualification from a Certification Body recognized by EPA for commercial griddles 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 commercial griddle testing.

### Using the ENERGY STAR Name and Marks

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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](http://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 commercial griddles.
  - 5.1. The ENERGY STAR mark must be clearly displayed on the 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

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6. Participate in third-party verification testing through a Certification Body recognized by EPA for commercial griddles.
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

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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 commercial griddles 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](http://www.energystar.gov/mesa).

### **Performance for Special Distinction**

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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](http://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](http://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](http://www.epa.gov/greenpower).



# ENERGY STAR® Program Requirements Product Specification for Commercial Griddles

## Eligibility Criteria DRAFT Version 1.1

Following is the **Version 1.1** ENERGY STAR product specification for commercial griddles. 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. Single-Sided Commercial Griddle: A commercial appliance designed for cooking food in oil or its own juices by direct contact with either a flat, smooth, hot surface (e.g., polished steel or chrome plate) or a hot channeled cooking surface (e.g., polished steel or chrome ½-inch grooved plate) where plate temperature is thermostatically controlled.
- B. Double-Sided Commercial Griddle: A commercial appliance designed for cooking food in oil or its own juices by direct contact with two hot surfaces where temperature is thermostatically controlled. A double-sided griddle has hinged upper griddle plates (platens) that swing down over the food, thereby cooking the food from both sides at once.
- C. Product Family: Several models are offered within one product line that may differ in regards to energy consumption but are based on the same engineering design, differing only in regards to griddle size and/or griddle plate option.
- D. Fry-Top Range: A multi-purpose appliance used for surface cooking by direct contact with a heated plate, and may also function as a device for roasting, broiling, grilling or any combination of these methods. A fry-top range may have an oven located beneath the cooktop or shelving or may be mounted on top of a refrigerated base.
- E. Manual Control: Infinite-control knob to regulate the input of each burner or element. Manual controls are calibrated in terms of the percentage of input, as the control does not generally sense the temperature of the cooking surface.
- F. Thermostatic Control: Simple temperature-feedback control that regulates the heaters based on griddle plate temperature. Thermostatic controls have the potential to sense the presence of cooking loads and offer better response and faster recovery when a load of fresh product is placed on the cooking surface.
- G. Cooking Energy Efficiency: The ratio of energy absorbed by the food product to the total energy supplied to the griddle during cooking.
- H. Idle Energy Rate: The rate of griddle energy consumption while it is maintaining or holding at a stabilized operating condition or temperature. Also called standby energy rate. For the purposes of this specification, the idle rate is normalized based on the area of the (bottom) cooking surface.

### 2) **Scope:**

- A. Included Products: Products that meet the definitions of a Single-Sided and Double-Sided Griddle as specified herein are eligible for ENERGY STAR qualification, with the exception of products listed in Section 2.B
- B. Excluded Products: Griddles with manual controls and fry-top ranges, as defined in Section 1 above, are not eligible for ENERGY STAR under this specification.

### 3) Qualification Criteria:

#### A. Cooking Energy Efficiency and Idle Energy Rate Requirements:

<b>Table 1: Energy Efficiency Requirements for Single and Double Sided Commercial Gas Griddles</b>	
Cooking Energy Efficiency <i>at heavy-load conditions</i>	≥ 38%
Normalized Idle Energy Rate	≤ 2,650 Btu/h per ft <sup>2</sup>

<b>Table 2: Energy Efficiency Requirements for Single and Double Sided Commercial Electric Griddles</b>	
<b>Tier 1: Effective May 8, 2009</b>	
Cooking Energy Efficiency <i>at heavy load conditions</i>	≥ 70%
Normalized Idle Energy Rate	≤ 355 watts/ft <sup>2</sup>
<b>Tier 2: Effective January 1, 2011</b>	
Cooking Energy Efficiency	≥ 70%
Normalized Idle Energy Rate	≤ 320 watts/ft <sup>2</sup>

#### B. Idle Mode Normalization Calculations:

- a. Single and Double-Sided Griddles: The following formulae shall be used to normalize the idle energy rates for gas and electric griddles:

$$q_{e-idle,n} = \frac{1000 \times q_{elec} (kW)}{A (ft^2)} \quad q_{g-idle,n} = \frac{q_{gas} (Btu / h)}{A (ft^2)}$$

Where

$q_{g-idle,n}$  = normalized gas griddle idle energy rate (Btu/h/ft<sup>2</sup>)

$q_{gas}$  = gas energy rate during idle (Btu/h)

$q_{e-idle,n}$  = normalized electric griddle idle energy rate (W/ft<sup>2</sup>)

$q_{elec}$  = electric energy rate during idle (kW)

A = area of the bottom cooking surface (ft<sup>2</sup>) measured splashguard to splashguard and splashguard to grease trough

- b. Double-sided Griddles that include an electric top plate and gas bottom plate: These product types shall meet the cooking energy efficiency and normalized idle energy rate for gas griddles in Table 1, above. The formula provided below shall be used to normalize idle energy rate in Btu/h per ft<sup>2</sup>.

$$q_{ds-idle,n} = \frac{q_{gas} (Btu / h) + 3413 \times q_{elec} (kW)}{A (ft^2)}$$

Where

$q_{ds-idle,n}$  = normalized gas griddle idle energy rate (Btu/h/ft<sup>2</sup>)

$q_{gas}$  = gas energy rate during idle (Btu/h)

$q_{elec}$  = electric energy rate during idle (kW)

A = area of the bottom cooking surface (ft<sup>2</sup>) measured splashguard to splashguard and splashguard to grease trough

- C. Additional Qualification Requirements for Double-Sided Griddles: Double-Sided Griddles may qualify for ENERGY STAR under the following conditions:
- a. Integrated, double-sided units with full top platen ( $\geq 90\%$  coverage from side to side) shall be tested and evaluated for qualification as a double-sided griddle.
  - b. Integrated, double-sided unit with partial platen(s) ( $< 90\%$  coverage from side to side) shall be tested and evaluated for qualification as a single sided griddle (with top up and turned off).
  - c. Double-sided units with add-on top platens (full or partial) shall be tested and evaluated for qualification as a single sided griddle (with top up and turned off).

**Note:** Integrated refers to double-sided griddles designed to operate only while using a top platen. Add-on top platens are sold to end users as options to a single sided griddle and can be added on to a base model at the factory level or installed in the field.

D. 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 figure 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 per the following requirements:
  - a. For qualification of an individual product model, the representative model shall be equivalent to that which is intended to be marketed and labeled as ENERGY STAR.
  - b. For qualification of a product family, the 3 ft. model within the product family shall serve as the representative model. If product family includes units smaller than 3 ft., each additional unit shall be tested and qualified separately from its product family. If smaller unit does not qualify, then it cannot be part of the qualifying product family.
- B. Each individual griddle plate option offered by the manufacturer for any one model shall be tested for ENERGY STAR qualification.
- C. When testing commercial griddles, the following test methods shall be used to determine ENERGY STAR qualification:

<b>Table 3: Test Methods for ENERGY STAR Qualification</b>	
<b>ENERGY STAR Requirement</b>	<b>Test Method Reference</b>
Cooking Energy Efficiency	ASTM F1275-03: <i>Standard Test Method for the Performance of Griddles</i>
Idle Energy Rate	ASTM F1605-01: <i>Standard Test Method for the Performance of Double-Sided Griddles</i>

- 5) **Effective Date:** This ENERGY STAR Commercial Griddle Specification shall take effect on the dates specified in Table 4, below. To qualify for ENERGY STAR, a product model shall meet the ENERGY STAR specification in effect on the 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 completely assembled.

<b>Table 4: Specification Effective Dates</b>	
<b>Tier 1</b>	<b>Tier 2 (Electric Griddles Only)</b>
May 8, 2009	January 1, 2011

- 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 ENERGY STAR qualification is not automatically granted for the life of a product model.
- A. Tier 2 Normalized Idle Energy Rate: The Tier 2 normalized idle energy rate for electric griddles will be reviewed prior to January 1, 2011 to ensure it is appropriate for the marketplace.
  - B. Partial Platen Performance: At the time of developing this specification, the ASTM F1605 test method for measuring double-sided griddle performance could not be applied to units with partial platens. However, there is industry interest to revise the test method to more appropriately measure cooking energy efficiency and idle energy rate of double-sided griddles with partial platens. If new ASTM testing guidelines are developed for partial platen configurations, EPA will require that the new test method be applied to these product types for purposes of ENERGY STAR qualification.