



## ENERGY STAR® Program Requirements for Commercial Griddles

### Final Draft: Partner Commitments

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#### Commitment

The following are the terms of the ENERGY STAR Partnership Agreement as it pertains to the manufacturing of ENERGY STAR qualified commercial griddles. 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 griddles and specifying the testing criteria for commercial griddles. 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 griddle within one year of activating the commercial griddles' 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 griddles. 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;
- provide to EPA, on an annual basis, an updated list of ENERGY STAR qualifying commercial griddle models. Once the Partner submits its first list of ENERGY STAR qualified commercial griddles, 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 griddles 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 griddles 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 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 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](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.
- 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](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, visit <http://www.epa.gov/grnpower>.



# ENERGY STAR® Program Requirements for Commercial Griddles

## Final Draft: Eligibility Criteria

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Below is the **Final Draft** Version 1.0 product specification for ENERGY STAR qualified commercial griddles. A product must 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. **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.
- D. **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.
- E. **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.
- F. **Cooking Energy Efficiency:** The ratio of energy absorbed by the food product to the total energy supplied to the griddle during cooking.
- G. **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) Qualifying Products:** A commercial griddle must meet definitions provided in Section 1A and 1B above to be eligible for ENERGY STAR qualification under this specification. Only thermostatically controlled griddles may qualify for ENERGY STAR. Manually controlled griddles and fry-top ranges, as defined in Section 1 above, are not eligible for ENERGY STAR under this Version 1.0 specification.

**3) Efficiency Requirements for Qualifying Products:** Commercial griddles must meet all the requirements provided below to qualify as ENERGY STAR.

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

**Table 2: Energy Efficiency Requirements for Single and Double Sided Commercial Electric Griddles**

<b>Tier 1: Effective May 8, 2009</b>	
Cooking Energy Efficiency*	$\geq 70\%$
Normalized Idle Energy Rate	$\leq 355 \text{ watts/ft}^2$
<b>Tier 2: Effective January 1, 2011</b>	
Cooking Energy Efficiency*	$\geq 70\%$
Normalized Idle Energy Rate	$\leq 320 \text{ watts/ft}^2$

\*Note: Measured at heavy-load conditions per ASTM F1275 and F1605. Performance results must be reported using rounding to the nearest whole number.

**Note:** Because of concerns that EPA's current data set may under represent more energy intensive electric griddle models currently on the market, EPA is delaying the previously proposed energy efficiency requirement for electric griddles of 320 watts/ft<sup>2</sup> by one year and establishing an interim tier. In the near term, EPA is proposing a normalized idle energy rate that allows a fairly large number of models for which we have data to qualify but effectively differentiates among products to deliver cost effective savings. Based on EPA's analysis, at 355 watts/ft<sup>2</sup>, the end user saves almost 2,200 kWh/year, or \$220/year, and recovers the incremental purchase cost in less than 5 years. The normalized idle energy rate for Tier 2, which remains cost effective based on the additional savings delivered, will be reviewed in advance of its effective date to ensure it remains appropriate.

EPA did not receive any comments on the proposed gas griddle requirements. As such, EPA considers the levels presented in Table 1, above, to be final for these product types.

The formulae for normalizing the idle energy rates for gas and electric griddles are as follows:

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

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

**Double-sided griddles that include an electric top plate and gas bottom plate** must meet the cooking energy efficiency and idle energy rate for gas griddles in Table 1, above. Manufacturers should use the formula provided below to determine normalized 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

**Double-sided griddles may qualify for ENERGY STAR under the following conditions:**

- (1) Integrated, double-sided units with full top platen ( $\geq 90\%$  coverage from side to side) must test and qualify as a double-sided griddle.
- (2) Integrated, double-sided unit with partial platen(s) ( $< 90\%$  coverage from side to side) must test and qualify as a single sided griddle (with top up and turned off).
- (3) Double-sided units with add-on top platens (full or partial) must test and qualify 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.

**4) Test Criteria:** Partner is required to perform tests and self-certify those product models that meet the ENERGY STAR guidelines. The test results must be reported to EPA using the Commercial Griddles Qualifying Product Information (QPI) Form. Test results must also be submitted along with the QPI form. When testing commercial griddles, the partner must use the following test procedures to determine ENERGY STAR compliance:

- ASTM F1275: *Standard Test Method for the Performance of Griddles*
- ASTM F1605: *Standard Test Method for the Performance of Double-Sided Griddles*

**Note:** ASTM standards define cooking energy efficiencies for heavy-load (roughly four hamburger patties per square foot) and light-load (four hamburger patties per load) conditions. For purposes of ENERGY STAR, cooking energy efficiency is measured at heavy-load conditions.

**Qualifying Griddle Families:** Manufacturers may submit qualifying product information representing an entire family of griddles using one QPI Form according to the following procedures:

- 1) Test and submit a completed QPI Form for the representative 3' griddle within the product family.
- 2) Attach to the completed QPI Form, equipment specification sheets for each griddle to be qualified within that family. These sheets must provide proof that the design and insulation specifications for these additional models are identical to that of the 3' unit.
- 3) If product family includes units smaller than 3', manufacturer must test and qualify that unit separately from its product family.

**Reporting Griddle Plate Options:** Each individual griddle plate option must be tested and results submitted to EPA for ENERGY STAR qualification. If several griddle plate options are offered under one model number and some of these do not meet ENERGY STAR requirements, manufacturer must then add a unique identifier or suffix to the model number to indicate which griddle plate option and model combination meets the ENERGY STAR requirements. For example, if Model 123 is tested with chrome and steel plates and only the chrome option qualifies, the manufacturer could indicate qualification by adding an ES extension to the model number (i.e., 123-ES) when listing the chrome option on the specification sheet.

**Note:** EPA received limited feedback on proposed testing and reporting requirements for griddles that offer multiple griddle plate options. In this Final Draft document, EPA is proposing that each individual griddle plate option be tested and reported to EPA for a model to earn the ENERGY STAR. If any of these options do not meet the specification requirements then the manufacturer will be required to clearly differentiate the ENERGY STAR qualified option(s) by using a unique model number or suffix following the model number.

EPA will closely monitor the use of the ENERGY STAR mark and address any cases where a manufacturer might be misrepresenting qualification. It is important that manufacturers clearly differentiate ENERGY STAR and non-ENERGY STAR options. Promoting an entire model line that offers more than one griddle plate option as ENERGY STAR, including options that have not been tested and approved for ENERGY STAR qualification, could result in a logo violation and appropriate action taken by EPA.

- 274 **5) Effective Date:** The date that manufacturers may begin to label and promote qualifying products as  
275 ENERGY STAR will be defined as the *effective date* of the agreement. The ENERGY STAR  
276 Commercial Griddle Specification shall go into effect on **May 8, 2009**  
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278 **Qualifying Electric Griddles under Tier 2 of this Version 1.0 Specification:** The second phase of  
279 this specification, Tier 2, shall become effective for electric griddles **on January 1, 2011**. All electric  
280 griddle models, including those originally qualified under Tier 1, with a date of manufacture on or after  
281 January 1, 2011, must meet the Tier 2 requirements in order to qualify for ENERGY STAR. The date  
282 of manufacture is specific to each unit and is the date (e.g., month and year) on which a unit is  
283 considered to be completely assembled. Models qualified under Tier 1 that do not meet the Tier 2  
284 specification will be removed from the ENERGY STAR Qualified Product List on January 1, 2011 and  
285 the manufacturer must cease labeling and promoting the model as ENERGY STAR qualified.  
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287 **Note:** EPA has extended the effective date by one week to allow stakeholders a full two weeks to  
288 comment on this Final Draft specification. In preparation for the upcoming launch at the National  
289 Restaurant Association Show, May 16 – 19, EPA is also providing the necessary paperwork needed  
290 to join the ENERGY STAR program and submit qualified model information. **Please note that the**  
291 **ENERGY STAR mark should not be used to promote qualified models until May 8, 2009.**  
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295 **6) Future Specification Revisions:** EPA reserves the right to change the specification should  
296 technological and/or market changes affect its usefulness to consumers, industry, or the environment.  
297 In keeping with current policy, revisions to the specification are arrived at through industry  
298 discussions. In the event of a specification revision, please note that ENERGY STAR qualification is  
299 not automatically granted for the life of a product model. To carry the ENERGY STAR mark, a product  
300 model must meet the ENERGY STAR specification in effect on the model's date of manufacture.  
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302 **Partial Platen Performance:** At the time of developing this Version 1.0 specification, the ASTM  
303 F1605 test method for measuring double-sided griddle performance could not be applied to units with  
304 partial platens. However, there is industry interest to revise the test method to more appropriately  
305 measure cooking energy efficiency and idle energy rate of double-sided griddles with partial platens.  
306 If new ASTM testing guidelines are developed for partial platen configurations, manufacturers will be  
307 required to test and qualify these units for ENERGY STAR using the new test method.  
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