



ENERGY STAR® Program Requirements for Commercial Griddles

Draft 1: Partner Commitments

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13 **Commitment**

14 The following are the terms of the ENERGY STAR Partnership Agreement as it pertains to the
15 manufacturing of ENERGY STAR qualified commercial griddles. The ENERGY STAR Partner must
16 adhere to the following program requirements:

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- 18 • comply with current ENERGY STAR Eligibility Criteria, defining the performance criteria that must be
19 met for use of the ENERGY STAR certification mark on commercial griddles and specifying the testing
20 criteria for commercial griddles. EPA may, at its discretion, conduct tests on products that are referred
21 to as ENERGY STAR qualified. These products may be obtained on the open market, or voluntarily
22 supplied by Partner at EPA's request;
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- 24 • comply with current ENERGY STAR Identity Guidelines, describing how the ENERGY STAR marks
25 and name may be used. Partner is responsible for adhering to these guidelines and for ensuring that
26 its authorized representatives, such as advertising agencies, dealers, and distributors, are also in
27 compliance;
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- 29 • qualify at least one ENERGY STAR commercial griddle within one year of activating the commercial
30 griddles' portion of the agreement. When Partner qualifies the product, it must meet the specification
31 (e.g., Tier 1 or 2) in effect at that time;
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- 33 • Provide clear and consistent labeling of ENERGY STAR qualified commercial griddles. The ENERGY
34 STAR mark must be clearly displayed on the front of the product, in product literature (i.e., user
35 manuals, spec sheets, etc.), and on the manufacturer's Internet site where information about ENERGY
36 STAR qualified models is displayed;
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- 38 • provide to EPA, on an annual basis, an updated list of ENERGY STAR qualifying commercial griddle
39 models. Once the Partner submits its first list of ENERGY STAR qualified commercial griddles, the
40 Partner will be listed as an ENERGY STAR Partner. Partner must provide annual updates in order to
41 remain on the list of participating product manufacturers;
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- 43 • provide to EPA, on an annual basis, unit shipment data or other market indicators to assist in
44 determining the market penetration of ENERGY STAR. Specifically, Partner must submit the total
45 number of ENERGY STAR qualified commercial griddles shipped (in units by model) or an equivalent
46 measurement as agreed to in advance by EPA and Partner. Partner is also encouraged to provide
47 ENERGY STAR qualified unit shipment data segmented by meaningful product characteristics (e.g.,
48 capacity, size, speed, or other as relevant), total unit shipments for each model in its product line, and
49 percent of total unit shipments that qualify as ENERGY STAR. The data for each calendar year should
50 be submitted to EPA, preferably in electronic format, no later than the following March and may be
51 provided directly from the Partner or through a third party. The data will be used by EPA only for
52 program evaluation purposes and will be closely controlled. If requested under the Freedom of
53 Information Act (FOIA), EPA will argue that the data is exempt. Any information used will be masked
54 by EPA so as to protect the confidentiality of the Partner;
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- 56 • notify EPA of a change in the designated responsible party or contacts for commercial griddles within
57 30 days.
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59 **Performance for Special Distinction**

60 In order to receive additional recognition and/or support from EPA for its efforts within the

61 Partnership, the ENERGY STAR Partner may consider the following voluntary measures and should keep
62 EPA informed on the progress of these efforts:

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- 64 • consider energy efficiency improvements in company facilities and pursue the ENERGY STAR mark for
65 buildings;
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- 67 • purchase ENERGY STAR qualified products. Revise the company purchasing or procurement
68 specifications to include ENERGY STAR. Provide procurement officials' contact information to EPA for
69 periodic updates and coordination. Circulate general ENERGY STAR qualified product information to
70 employees for use when purchasing products for their homes;
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- 72 • ensure the power management feature is enabled on all ENERGY STAR qualified monitors in use in
73 company facilities, particularly upon installation and after service is performed;
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- 75 • provide general information about the ENERGY STAR program to employees whose jobs are relevant
76 to the development, marketing, sales, and service of current ENERGY STAR qualified product models;
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- 78 • feature the ENERGY STAR mark(s) on Partner Web site and in other promotional materials. If
79 information concerning ENERGY STAR is provided on the Partner Web site as specified by the
80 ENERGY STAR Web Linking Policy (this document can be found in the Partner Resources section on
81 the ENERGY STAR Web site at www.energystar.gov), EPA may provide links where appropriate to the
82 Partner Web site;
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- 84 • provide a simple plan to EPA outlining specific measures Partner plans to undertake beyond the
85 program requirements listed above. By doing so, EPA may be able to coordinate, communicate,
86 and/or promote Partner's activities, provide an EPA representative, or include news about the event in
87 the ENERGY STAR newsletter, on the ENERGY STAR Web pages, etc. The plan may be as simple
88 as providing a list of planned activities or planned milestones that Partner would like EPA to be aware
89 of. For example, activities may include: (1) increase the availability of ENERGY STAR labeled
90 products by converting the entire product line within two years to meet ENERGY STAR guidelines; (2)
91 demonstrate the economic and environmental benefits of energy efficiency through special in-store
92 displays twice a year; (3) provide information to users (via the Web site and user's manual) about
93 energy-saving features and operating characteristics of ENERGY STAR qualified products, and (4)
94 build awareness of the ENERGY STAR Partnership and brand identity by collaborating with EPA on
95 one print advertorial and one live press event;
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- 97 • provide quarterly, written updates to EPA as to the efforts undertaken by Partner to increase availability
98 of ENERGY STAR qualified products, and to promote awareness of ENERGY STAR and its message.
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- 100 • join EPA's SmartWay Transport Partnership to improve the environmental performance of the
101 company's shipping operations. SmartWay Transport works with freight carriers, shippers, and other
102 stakeholders in the goods movement industry to reduce fuel consumption, greenhouse gases, and air
103 pollution. For more information on SmartWay, visit www.epa.gov/smartway.
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- 105 • join EPA's Climate Leaders Partnership to inventory and reduce greenhouse gas emissions. Through
106 participation companies create a credible record of their accomplishments and receive EPA recognition
107 as corporate environmental leaders. For more information on Climate Leaders, visit
108 www.epa.gov/climateleaders.
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- 110 • join EPA's Green Power partnership. EPA's Green Power Partnership encourages organizations to buy
111 green power as a way to reduce the environmental impacts associated with traditional fossil fuel-based
112 electricity use. The partnership includes a diverse set of organizations including Fortune 500
113 companies, small and medium businesses, government institutions as well as a growing number of
114 colleges and universities, visit <http://www.epa.gov/grnpower>.



ENERGY STAR® Program Requirements for Commercial Griddles

Draft 1: Eligibility Criteria

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Below is the **DRAFT 1** 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 (i.e., flat, polished steel plate) or a hot channeled cooking surface (i.e., polished steel 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 heater 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 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.

Note: Stakeholders are encouraged to comment on the definitions proposed above and/or provide suggestions regarding other terms that might need to be defined within this section.

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- 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. Griddles that are manually controlled and fry-top ranges, as defined in Section 1 above, are not eligible for ENERGY STAR under this Version 1.0 specification.

Note: EPA is proposing to exclude manually controlled griddles at this time because the test procedures referenced in Section 4, below, can only be applied to thermostatically controlled models. If a test procedure is developed that can be used to measure and compare energy performance, EPA may consider adding manually controlled griddles to this specification at a later date.

Fry-top ranges are also excluded because the griddle tops can be sold with ranges attached. Labeling the griddle component of this product type could be confusing to the consumer who may assume that the range is also energy efficient; however, at this time ranges are not covered by ENERGY STAR.

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	≤ 2,600 Btu/h per ft ²

Table 2: Energy Efficiency Requirements for Single and Double Sided Commercial Electric Griddles	
Cooking Energy Efficiency*	≥ 70%
Normalized Idle Energy Rate	≤ 320 watts/ft ²

*Cooking energy efficiency measured at heavy load conditions per ASTM F1275 and F1605.

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/ft²,
- q_{gas} = gas energy rate during idle, Btu/h,
- q_{e-idle,n} = normalized electric griddle idle energy rate, W/ft²,
- q_{elec} = electric energy rate during idle, kW,
- A = area of the bottom cooking surface (ft²)

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 ft².

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

Where

- q_{ds-idle,n} = normalized gas griddle idle energy rate, Btu/h/ft²,
- q_{gas} = gas energy rate during idle, Btu/h,
- q_{elec} = electric energy rate during idle, kW,
- A = area of the bottom cooking surface (ft²)

Note: The primary objective of ENERGY STAR is to recognize the most energy-efficient products in the marketplace. In developing a specification, EPA considers the following criteria:

- Significant energy and/or water 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 and/or water efficiency can be achieved through several technology options; at least one of which is non-proprietary;
- Product energy and/or water consumption and performance can be measured and verified with testing;
- Labeling would effectively differentiate products and be visible for purchasers.

It is not EPA's intention to design a specification that will allow every model to qualify. The performance levels proposed in Tables 1 and 2 are based on data provided by PG&E's Food Service Technology Center (FSTC) and represent approximately the top 25% of both the electric and gas griddle datasets. EPA hopes that over time, the percentage of qualified products will increase as ENERGY STAR penetrates the market. While the gas dataset is fairly robust, the electric dataset is more limited. Manufacturers are encouraged to test their electric griddles and provide data to EPA for consideration in the electric griddles analysis.

Both the gas and electric datasets include single- and double-sided griddles, albeit limited data points for the latter. Because both product types offer the same functionality, EPA is proposing the same requirements for single- and double-sided griddles. Double-sided griddles that use an electric top plate and bottom plate must meet the requirements in Table 2 while griddles that use an electric top plate and gas bottom plate must meet the requirements in Table 1 using the calculation provided above to convert kW to Btu/h in order to determine normalized idle energy rate. EPA is proposing the use of a *normalized* idle energy rate to avoid creating individual performance levels for each griddle size, which could limit the types of griddles eligible for ENERGY STAR. Stakeholders are encouraged to comment on EPA's approach and proposed levels, above.

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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. When testing commercial griddles, the partner agrees to 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.

5) Effective Date: The date that manufacturers may begin to label and promote qualifying products as ENERGY STAR will be defined as the *effective date* of the agreement. The ENERGY STAR Commercial Griddle Specification shall go into effect on **February 5, 2009**

Note: Typically, EPA looks to announce a new ENERGY STAR specification in conjunction with an industry trade show or conference. It is EPA's hope to finalize this specification in late January and launch the new product category at the North American Foodservice Equipment Manufacturers (NAFEM) Show, February 5 – 7, 2009. However, EPA also realizes that this is an aggressive timeline. If more time is needed to refine the requirements, NAFEM will provide an opportunity to meet with manufacturers and discuss the latest draft specification. Stakeholders are encouraged to provide feedback on this timeline and suggestions for other potential launch venues (e.g., NRA Show in May, 2009).

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- 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. To carry the ENERGY STAR mark, a product model must meet the ENERGY STAR specification in effect on the model's date of manufacture.