



ENERGY STAR® Program Requirements for Commercial Fryers

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

1. Comply with current ENERGY STAR Eligibility Criteria, which define performance requirements and test procedures for commercial fryers. A list of eligible products and their corresponding Eligibility Criteria can be found at www.energystar.gov/specifications.
2. **Prior to associating the ENERGY STAR name or mark with any product**, obtain written certification of ENERGY STAR qualification from a Certification Body recognized by EPA for commercial fryers. As part of this certification process, products must be tested in a laboratory recognized by EPA to perform commercial fryer testing. A list of EPA-recognized laboratories and Certification Bodies can be found at www.energystar.gov/testingandverification.

Using the ENERGY STAR Name and Marks

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.
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 in the U.S. and/or ENERGY STAR partner countries.
5. Provide clear and consistent labeling of ENERGY STAR qualified commercial fryers.
 - 5.1. The ENERGY STAR mark must be clearly displayed on the front/inside 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

6. Participate in third-party verification testing through a Certification Body recognized by EPA for commercial fryers, providing full cooperation and timely responses. EPA/DOE may also, 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 the government's request.

Providing Information to EPA

7. Provide unit shipment data or other market indicators to EPA annually to assist with creation of ENERGY STAR market penetration estimates, as follows:

- 7.1. Partner must submit the total number of ENERGY STAR qualified commercial fryers 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).
- 7.2. Partner must provide unit shipment data segmented by meaningful product characteristics (e.g., type, capacity, presence of additional functions) as prescribed by EPA.
- 7.3. 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. 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.

8. Report to EPA any attempts by recognized laboratories or Certification Bodies (CBs) to influence testing or certification results or to engage in discriminatory practices.
9. 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.

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:

- 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, and communicate 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.
- 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.



ENERGY STAR® Program Requirements Product Specification for Commercial Fryers

Eligibility Criteria Version 2.0

Following is the Version 2.0 product specification for ENERGY STAR qualified commercial fryers. 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. **Commercial Open, Deep-Fat Fryer:** An appliance, including a cooking vessel, in which oil is placed to such a depth that the cooking food is essentially supported by displacement of the cooking fluid rather than by the bottom of the vessel. Heat is delivered to the cooking fluid by means of an immersed electric element or band-wrapped vessel (electric fryers), or by heat transfer from gas burners through either the walls of the fryer or through tubes passing through the cooking fluid (gas fryers).
 - a. **Standard Fryer:** A fryer with a vat that measures ≥ 12 inches and < 18 inches wide, and a shortening capacity ≥ 25 pounds and ≤ 65 pounds.
 - b. **Large Vat Fryer:** A fryer with a vat that measures ≥ 18 inches and ≤ 24 inches wide, and a shortening capacity > 50 pounds.
 - c. **Split Vat Fryer:** A standard or large vat fryer with an internal wall that separates the vat into two equal sides.
- B. **Cooking Energy Efficiency:** The quantity of energy input to the food product (i.e., french fries) during the cooking process; expressed as a percentage of the quantity of energy input to the fryer during the heavy-, medium-, and light-load tests. For purposes of this specification, the heavy-load test as defined in ASTM F1361-07 and ASTM F2144-09 will be used as a measurement of cooking energy efficiency.
- C. **Idle Energy Rate:** The average rate of energy consumed [Btu/h (kJ/h) or kW] by the fryer while “holding” or “idling” the frying medium at the thermostat(s) set point.
- D. **Product Family:** Variations of one model are offered within a single product line with differences in aesthetics only. Individual models represented by a product family must be based on the same basic engineering design and have the same cooking energy efficiency and idle energy rate. All members of the family must also have the same fry pot size.

2) **Scope:**

- A. **Included Products:** Products that meet the definition of a Commercial Open Deep-Fat Fryer as specified herein are eligible for ENERGY STAR qualification, with the exception of products listed in Section 2.B. Countertop and floor type designs are eligible to qualify for ENERGY STAR.
- B. **Excluded Products:** Fryers with vats measuring < 12 inches wide, or > 24 inches wide, are not eligible for ENERGY STAR.

3) Qualification Criteria:

- A. Determining Fry Pot Size: The frying area shall be measured at the fryer's maximum fill-line. The frypot width is considered to be the distance between the inner side walls of the frypot. The dimensions for split vat fryers shall be considered to be twice the width of one side. For kettle fryers, the frying area shall be measured at the fryer's maximum fill-line using the diameter of the cylinder and determined by the inner walls.
- B. Cooking Energy Efficiency and Idle Energy Rate Requirements – Standard Fryers

Table 1: Energy Efficiency Requirements for Standard Open Deep-Fat Gas Fryers	
Heavy-Load Cooking Energy Efficiency	≥ 50%
Idle Energy Rate	≤ 9,000 Btu/hr

Table 2: Energy Efficiency Requirements for Standard Open Deep-Fat Electric Fryers	
Heavy-Load Cooking Energy Efficiency	≥ 80%
Idle Energy Rate	≤ 1000 watts

- C. Cooking Energy Efficiency and Idle Energy Rate Requirements – Large Vat Fryers

Table 3: Energy Efficiency Requirements for Large Vat Open Deep-Fat Gas Fryers	
Heavy-Load Cooking Energy Efficiency	≥ 50%
Idle Energy Rate	≤ 12,000 Btu/hr

Table 4: Energy Efficiency Requirements for Large Vat Open Deep-Fat Electric Fryers	
Heavy-Load Cooking Energy Efficiency	≥ 80%
Idle Energy Rate	≤ 1,100 watts

Note: Split-vat cooking energy efficiency and idle rate performance shall be measured with both sides operating.

- D. Significant Digits and Rounding:
 - a. All calculations shall be carried out with directly measured (unrounded) values.
 - b. Unless otherwise specified, compliance with specification limits shall be evaluated using directly measured or calculated values without any benefit from rounding.
 - c. Directly measured or calculated values that are submitted for reporting on the ENERGY STAR website shall be rounded to the nearest significant digit as expressed in the corresponding specification limit.

4) Test Criteria:

- 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, any model within that product family can be tested and serve as the representative model.

B. When testing commercial fryers, the following test methods shall be used to determine ENERGY STAR qualification:

Table 5: Test Methods for ENERGY STAR Qualification	
ENERGY STAR Requirement	Test Method Reference
Cooking Energy Efficiency	ASTM Standard F1361-07, <i>Test Method for the Performance of Open Deep Fat Fryers (standard fryers)</i>
Idle Energy Rate	OR ASTM Standard F2144-09, <i>Test Method for Performance of Large Open Vat Fryers (large vat fryers)</i>

5) Effective Date: The ENERGY STAR Commercial Fryer specification shall take effect on **April 22, 2011**. To qualify for ENERGY STAR, a product model shall meet the ENERGY STAR specification in effect on the model's date of manufacture. The date of manufacture is specific to each unit and is the date on which a unit is considered to be completely assembled

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. Please note that ENERGY STAR qualification is not automatically granted for the life of the product model.