

7/9/12

ENERGY STAR Water Heater Draft3, Version 2.0, has been updated to reflect a refined proposal for EPACT covered water heaters. The proposed updates to Draft 3 are confined to two specific sections, with changes highlighted by italic text. No other changes are proposed.

Section 1)A is proposed as follows:

1) Definitions: Below are the definitions of the relevant terms in this document.

- A. Residential Water Heater: A product that utilizes gas, electricity, or solar thermal energy to heat potable water for use outside the heater upon demand, including:
- a. Storage type units which heat and store water at a thermostatically controlled temperature, including: gas storage water heaters with an input of 75,000 British thermal units (Btu) per hour or less and storage volume between 20 and 100 gallons; electric heat pump type units, with a maximum current rating of 24 amperes at a voltage no greater than 250 volts and designed to transfer thermal energy from one temperature level to a higher temperature level for the purpose of heating water, and, if a tank is supplied, having a storage volume of 120 gallons or less.
 - b. Instantaneous (or "tankless") type units which heat water but contain no more than one gallon of water per 4,000 Btu per hour of input, including: gas instantaneous water heaters with an input of 200,000 Btu per hour or less and with storage volume of less than 2 gallons.
 - c. *Hybrid type units which heat water but contain no more than one gallon of water per 4,000 Btu per hour of input, including: gas hybrid water heaters with an input of 200,000 btu per hour or less, storage volume of more than 2 gallons but no more than 20 gallons.*
 - d. Solar water heaters must include a collector and storage tank, and must use the sun's thermal energy to heat water. Solar type units eligible for the ENERGY STAR Water Heaters Program must be tested according to OG-300 as developed by the Solar Rating and Certification Corporation (SRCC). According to the SRCC, solar units employ one of the four basic types of solar water heating systems: forced circulation (includes both direct and indirect systems), integrated collector and storage, thermosiphon, or self-pumped.
 - e. Add-on Heat Pump Unit: Add-on heat pump units are air to water heat pumps designed for use with a storage-type water heater or a storage tank that is not specified or supplied by the manufacturer.
 - f. *EPACT covered gas water heaters which heat and store water at a thermostatically controlled temperature of 160 F or less, with an input rate greater than 75,000 British thermal units (Btu) per hour but not greater than 100,000 Btu per hour, and storage volume between 20 and 100 gallons.*

Section 3)B is proposed as follows:

3) Qualification Criteria:

B. Product Performance Requirements for Gas Water Heaters:

- a. Gas Storage Units

Criteria	ENERGY STAR Requirements
Energy Factor	EF ≥ 0.67
First Hour Rating	FHR ≥ 67 gallons per hour
Warranty	Warranty ≥ 6 years on system
Safety	ANSI Z21.10.1/CSA 4.1

b. Gas Instantaneous Units

Criteria Item	ENERGY STAR Requirements
Energy Factor	EF ≥ 0.82
Gallons-Per-Minute	GPM ≥ 2.5 over a 77° rise
Warranty	Warranty ≥ 10 years on heat exchanger and 5 years on parts
Safety	ANSI Z21.10.3/CSA 4.3

c. Gas Hybrid Units

Criteria Item	ENERGY STAR Requirements
Energy Factor	EF ≥ 0.75
Warranty	Warranty ≥ 6 years on system, 10 years on heat exchanger
Safety	ANSI Z21.10.3/CSA 4.3

d. EPACT Covered Residential Gas Units

Criteria	ENERGY STAR Requirements
Thermal Efficiency	TE ≥ 0.90
Standby Loss	Standby loss ≤ 2374 btu/hr * (TE - 0.74)
Warranty	Warranty ≥ 6 years on system
Safety	ANSI Z21.10.3/CSA 4.3