



Proposed Recognition Criteria Furnaces

Scope

Included products. Non-weatherized residential gas furnaces, as defined below, are eligible for ENERGY STAR® Most Efficient recognition in 2014.

Residential Furnace: A heating unit with a heat input rate of less than 225,000 Btu per hour whose function is the combustion of fossil fuel (natural gas, propane) for space heating with forced hot air. Unit must include burner(s), heat exchanger(s), blower(s) and connections to heating ducts. Unit may also provide hot water for domestic or other use.

Excluded products. The following products are not eligible for ENERGY STAR Most Efficient recognition in 2014:

- Furnaces intended for commercial installation and/or with a rating of 225,000 Btu per hour energy or higher
- Mobile home furnaces
- Weatherized gas furnaces
- Oil furnaces

Recognition Criteria

1) Product must be ENERGY STAR certified consistent with applicable ENERGY STAR Partner Commitments and the requirements set forth in the Version 4.0 ENERGY STAR Program Requirements Product Specification for Furnaces. Product performance must be certified by a certification body recognized by the U.S. Environmental Protection Agency (EPA).

2) AFUE 97% or higher.

3) Furnaces must have automatic setup, monitoring, and service messaging capabilities as specified below.

A. It will be possible for service personnel to access a log displaying fault history in plain text. The furnace may enable access through any mechanism, for instance: 1) a text-based display (e.g. LED) permanently incorporated into the unit, 2) at least one thermostat available on the market, 3) a diagnostic tool available on the market which can be brought to the work site by the service personnel. Other equivalent mechanisms are also acceptable.

B. Units will provide a signal from the blower fan that can be used to estimate static pressure across the fan.

C. Units shall facilitate display, in plain text, of messages to residents. This will include, at minimum, that the air filter needs changing, and that the unit needs professional service. This may be through display on the thermostat or other control device in occupied space in the home, or through any other system that can reach residents directly. Displays on a unit inside a closet,

basement or attic, or outside of conditioned space, will not be sufficient.

D. Units shall be capable of transmitting setup information to at least one controller on the market, including capacity, stages of heating and default air flow or static pressure drop requirements. The controller may be a thermostat, or an on-board controller designed to coordinate operation of an entire HVAC system.

Recognition Period

Upon review and approval of applications received from ENERGY STAR Partners, EPA will add qualifying models to the ENERGY STAR Most Efficient 2014 product list for furnaces from January 1, 2014 through December 30, 2014. The ENERGY STAR Most Efficient 2014 designation may be used in association with models recognized during this period for as long as the model remains on the market.