

# Existing homes: Heating and cooling systems and water heaters



Federal tax credits make it more economical than ever to install energy-efficiency measures in your home. This fact sheet explains how the tax credit works for owners of existing homes and which types of equipment are covered.

## How does it work?

- The credit is available for systems placed in service from January 1, 2009, through December 31, 2010.
- Homeowners who install highly efficient heating, cooling, and water heating equipment can take a tax credit of 30 percent of the cost of materials and labor when they buy qualifying equipment (see below).
- There is a \$1,500 cap on the credit per home. However, some measures are not subject to the cap.

## What types of high-efficiency equipment are eligible for the tax credit?

- Gas, oil, and propane furnaces and boilers
- Central air conditioning units, air-source and ground-source heat pumps
- Dual-fuel or hybrid systems (must meet efficiency requirements of both gas and electric systems)
- Fans for heating and cooling systems
- Some water heaters, including heat-pump water heaters
- Biomass stoves for space or water heating

## Is this credit available for homes under construction?

According to the Internal Revenue Service (IRS), equipment is eligible if installed in a

home occupied by a taxpayer as the principal residence. This implies that equipment in new homes is not eligible since it is generally installed before the home is occupied. However, efficient equipment in a new home may help the homeowner qualify for the new homes tax credit.

## How do I qualify for the tax credit?

The IRS requires manufacturers to certify specific products as eligible. The homeowner needs to obtain a copy of this certification from the retailer, installer, or manufacturer (or its website) when buying energy-efficiency products. Certifications need not be submitted to the IRS but should be kept on file with other tax records. Only modifications placed in service in 2009 and 2010 are eligible, with the exception of ground-source heat pumps. Additional information is available at [www.irs.gov](http://www.irs.gov).

## What are the efficiency requirements for the systems?

The requirements are listed below. You may also consult the manufacturer or retailer to help you determine whether a specific product qualifies.

### FURNACES

- Natural gas or propane: annual fuel use efficiency (AFUE) of 95 or higher
- Oil: AFUE of 90 or higher

**BOILERS**

- Gas, propane, or oil hot-water boilers: AFUE of 90 or higher

**CENTRAL AIR CONDITIONING UNITS**

The seasonal energy efficiency ratio (SEER) measures performance throughout the cooling season, and the energy efficiency ratio (EER) measures performance on a very hot day. Systems must meet the highest-tier standards of the Consortium for Energy Efficiency (CEE).

- Split systems (separate indoor and outdoor units): minimum SEER of 16 and EER of 13.
- Single-package systems: minimum SEER of 14 and EER of 12.

**AIR-SOURCE HEAT PUMPS**

Systems must meet the highest-tier standards of the CEE.

- Split systems (separate indoor and outdoor units): minimum SEER of 15, EER of 12.5, and heating seasonal performance factor (HSPF) of 8.5
- Single-package systems: minimum SEER of 14, EER of 12, and HPF of 8

**GROUND-SOURCE HEAT PUMPS**

Ground-source heat pumps are eligible for a tax credit of 30 percent of the installed cost with no cap.

- Must meet the following Energy Star® criteria and include a desuperheater (a pre-heater for a water heater) or an integrated water heating system
- Closed-loop systems: minimum 14.1 cooling EER and 3.3 heating coefficient of performance (COP)

- Open-loop systems: minimum 16.2 EER and 3.6 COP
- Direct-expansion systems: minimum 15 EER and 3.5 COP

**FANS FOR HEATING AND COOLING SYSTEMS**

- Fan must use no more than 2 percent of total heating system energy use, as defined by Department of Energy test procedure.

**WATER HEATERS**

- Gas, oil, or propane: minimum energy factor (EF) of 0.82 or thermal efficiency of at least 90 percent. The only current models meeting this standard are tankless water heaters and some systems that combine both space and water heating.
- Electric heat-pump water heaters: minimum EF of 2.0

**BIOMASS STOVES**

- Stoves for space or water heating must have a thermal efficiency rating of at least 75 percent.

**Where can I learn more about qualifying products?**

- [www.energytaxincentives.org](http://www.energytaxincentives.org)
- [www.energystar.gov](http://www.energystar.gov)
- [www.ahrinet.org](http://www.ahrinet.org) (click on Obtain Energy Efficiency Tax Credits)
- [www.ahridirectory.org](http://www.ahridirectory.org)
- [www.aceee.org/energy](http://www.aceee.org/energy) (click on Federal Tax Credit and Incentive Information)
- [www.cee1.org](http://www.cee1.org) (click on Residential)
- [www.geoexchange.org](http://www.geoexchange.org) (ground-source heat pumps)

*Note: The information in this fact sheet is not to be viewed as tax advice, nor should it be used as the sole source of information for tax purposes. Consult a tax professional, or refer to Internal Revenue Service information at [www.irs.gov](http://www.irs.gov).*

