



Federal Energy Efficiency Tax Credits for Existing Homes (Retrofit)

- Tax Credit of 30% of the cost of the materials and installation of the following systems
- The maximum amount of credit for all improvements placed in service in 2009 and 2010 combined is \$1,500
- Efficiency improvements, or equipment, must serve a dwelling owned and used by the taxpayer as a primary residence.
 - Exterior windows, skylights, and exterior doors:** To be eligible, must have a U-factor of less than or equal to 0.30 and a Solar Heat Gain Coefficient (SHGC) of less than or equal to 0.30
 - Storm windows and storm doors:** To be eligible, storm windows and doors must meet IECC in combination with the exterior window or door over which they are installed.
 - Insulation:** To be eligible, insulation levels must meet 2009 IECC and Amendments for the home's location
 - Energy Star roofing:** To be eligible, roofs must be Energy Star qualified

Federal Energy Efficiency Tax Credit for New Heating and Cooling Systems and Water Heating Systems

Taxpayers who purchase qualified residential energy-efficient property are eligible for a 30% tax credit up to a credit of \$1,500. The credit may also be applied to labor costs for assembly and original installation of eligible property. The following types of equipment are eligible: .

- Central Air Conditioner:** *Split Systems:* EER ≥ 13 and SEER ≥ 16
Package systems: EER ≥ 12 and SEER ≥ 14
- Air source Heat Pump:** *Split Systems:* HSPF ≥ 8.5 and EER ≥ 12.5 and SEER ≥ 15
Package systems: HSPF ≥ 8 and EER ≥ 12 and SEER ≥ 14
- Natural Gas or Propane Furnace:** AFUE ≥ 95
- Oil Furnace:** AFUE ≥ 90
- Gas, Propane, or Oil Water Boiler:** AFUE ≥ 90
- Advanced Main Air Circulating Fan:** No more than 2% of furnace total energy use
- Gas, Oil, Propane Water Heater:** Energy Factor ≥ 0.82 or a thermal efficiency of at least 90%.
- Electric Heat Pump Water Heater:** Same criteria as ENERGY STAR: Energy Factor of greater than or equal to 2.0
- Biomass Stove:** uses plant-derived fuel available on a renewable or recurring basis, including agricultural crops and trees, wood and wood waste and residues (including wood pellets), plants (including aquatic plants), grasses, residues, and fibers
Thermal efficiency rating of at least 75% as measured using the lower heating value
- Ground Source Heat Pump:** Same criteria as ENERGY STAR. Ground Source Heat Pumps are now included in the Federal Renewable Energy Tax Credit, see reverse side of this fact sheet for more information.

A Few Internet Resources

Federal and State, all incentives: www.dsireusa.org
 Consumer tax credits: www.ase.org/taxcredits
 All efficiency incentives: www.energytaxincentives.org
 Tax rules and forms: www.irs.gov

Energy Efficiency Information (tax credits and more): www.energystar.gov
 North Carolina Solar Center: NC renewable energy tax credit forms and instructions: www.ncsc.ncsu.edu

For more information about North Carolina Solar Center programs visit www.ncsc.ncsu.edu

• Federal Renewable Energy Tax Credits

A 30% tax credit for the purchase and installation of photovoltaic (solar electric or PV), solar water heating, ground source heat pumps, residential wind turbine, and fuel cell systems. Available to end of 2016.

The following caps apply: fuel cells (\$1,500 per 0.5 kW), Expenditures include labor costs for the onsite preparation, assembly, or original installation of the system and for piping or wiring to interconnect the system to the home.

The home served by the system does *not* have to be the taxpayer's principal residence.

Solar Water Heating Specifics

At least half the energy used to heat the dwelling's water must be from solar in order for the solar water-heating property expenditures to be eligible

Solar water heating property must be certified by the Solar Rating Certification Corporation (SRCC) or a comparable entity endorsed by the government of the State in which the property is installed.

The tax credit does **not** apply to solar water heating for swimming pools or hot tubs.

Geothermal (ground source) Heat Pump Specifics

Geothermal heat pumps must meet the requirements of the Energy Star program.

Federal Renewable Energy Tax Credits

Taxpayers are able to take the tax credit against the alternative minimum tax (AMT).

Expenditures are treated as made at system completion. Credit is calculated based on the taxpayer's expenditures **excluding subsidized energy financing.**

If the tax credit exceeds tax liability, the excess amount may be carried forward to future taxable years.

Significantly, *The American Recovery and Reinvestment Act of 2009* repealed a previous limitation on the use of the credit for eligible projects also supported by "subsidized energy financing." For projects placed in service after December 31, 2008, this limitation no longer applies.

• North Carolina Energy Efficiency Tax Credits

No NC residential energy efficiency tax credits exist at this time. Progress Energy and Duke Energy offer Energy Star Homes a 5% monthly discount for the life of the home. Learn more about these and other utility incentives at www.dsireusa.org

• North Carolina Renewable Energy Tax Credits

Tax credit of 35% of the cost of renewable energy system constructed, purchased, or leased by a taxpayer.

The credit is **not** limited to systems that serve a dwelling unit used as a residence by the taxpayer.

Eligible costs include:

Equipment and associated design

Construction costs

Installation costs

Less any discounts, rebates, advertising, etc.

If the credit is not used entirely in the first year, the remaining amount may be carried over for the next 5 years.

Passive Solar System:

Capped at \$3,500 per dwelling unit.

Includes cost of windows, thermal mass, and controls.

Domestic Solar Hot Water System (and pool heating):

Capped at \$1,400 per dwelling unit.

Active Space Heating, or Combined Active Space Heating and Domestic Hot Water System:

Capped at \$3,500 per dwelling unit.

Solar Electric (PV), Wind, Biomass, Hydroelectric:

Capped at \$10,500 per technology per unit.

The needed forms and instructions are available at the North Carolina Solar Center Website: www.ncsc.ncsu.edu

Solar Hot Water Example with Federal and NC credits

\$6,000 installed system cost

35% NC tax credit equals \$2,100, but is limited to \$1,400 by the cap

30% Federal tax credit equals \$1,800

But, you must pay federal income taxes on NC tax credit so (assuming 30% tax bracket) you owe 30% of \$1,400 (= \$420) in federal income taxes on the NC credit

Cost of system to user: \$6,000 - \$1,400 - \$1,800 + \$420 = \$3,220

Consumers are advised to consult with a tax professional

For more information about tax credits and residential building, visit: www.healthybuilt homes.org

