

Energy Credits & Rebates

Federal: Consumers who purchase and install specific products, such as energy-efficient windows (including skylights and storm windows), insulation, doors, roofs, and heating and cooling equipment in existing homes can receive a tax credit for 30% of the cost, up to a lifetime total cap of \$1,500.00, for improvements “placed in service” starting January 1, 2009, through December 31, 2010.

Even with multiple improvements you can only get a maximum of \$1,500.00 over the 2-year period (2009 & 2010). Basically you can spend up to \$5,000.00 during this 2 year period on a single or multiple improvements, and get 30% or \$1,500.00 back as a tax credit. If you get the entire \$1,500.00 credit in 2009, then you can't get anything additional in 2010.

The IRS defines “placed in service” as when the products or materials are ready and available for use – this would generally refer to the installation, not the purchase. The 30% of the cost of the measures, including installation costs for HVAC equipment, biomass stoves, water heaters (including solar), solar panels, geothermal heat pumps, wind energy systems, and fuel cells, but only product costs for windows, doors, insulation, roofing, and other parts of the building “shell”.

Federal: Residential Renewable Energy Tax Credits - Consumers who install solar energy systems (including solar water heating and solar electric systems), small wind systems, geothermal heat pumps, and residential fuel cell and microturbine systems can receive a 30% tax credit, with no maximum, on systems placed in service before December 31, 2016; the previous tax credit cap no longer applies.

Federal: You will need to file IRS Form 5695 with your taxes. In addition, you will need to keep at least receipts proving that you purchased the improvements and a copy of the manufacturer's certification. Accountants and tax advisors should be able to provide more guidance.

Product Criteria:

Exterior Windows (includes skylights and storm windows) and doors

-If placed in service between Jan. 1, 09 and Feb. 17, 09

Must meet the requirements for your region of the 2001 or 2004 IECC, a model energy code for buildings. All Energy Star windows qualify.

Maximum Fenestration *U*-Factor of 0.45

-If placed in service between Feb. 18, 09 and Dec. 31, 10

Must meet the requirements for your region of the 2001 or 2004 IECC, a model energy code for buildings.

Must be equal to or below a *U* factor of 0.30 and SHGC of 0.30.

*Notes: Only some Energy Star windows will qualify.

Insulation and roofs

- If placed in service between Jan. 1, 09 and Feb. 17, 09
Insulation must meet the 2001 or 2004 IECC. Ceilings=R-38, Walls=R-18, Floors=R-19, Basement Walls=R-9, Crawlspace Walls=R-17
Roofs must be metal roofs with pigmented coatings or asphalt roofs with cooling granules that meet Energy Star requirements.
 - If placed in service between Feb. 18, 09 and Dec. 31, 10
Insulation must meet the 2009 IECC. Ceilings=R-38, Wood Frame Walls=R-13, Mass Wall=R-5/10 (The second R-value applies when more than half the insulation is on the interior of the mass wall.), Floor=R-19, Basement Wall=R-10/13 (R-10 if continuous insulated sheathing on the interior or exterior of the home or R-13 if cavity insulation at the interior of the basement wall.), Crawlspace Wall=R-10/13 (see previous explanation)
- *Notes: Required insulation levels will vary by region and will include insulation that is already installed in your home.

Central AC and heat pumps

- If placed in service between Jan. 1, 09 and Feb. 17, 09
Central AC must meet the highest efficiency tier set by the Consortium for Energy Efficiency for 2006- seasonal energy efficiency ratio (SEER) of at least 15 and an energy efficiency ratio (EER) of at least 12.5 for most air conditioners.
Electric heat pumps must be SEER of at least 15 and an EER of at least 13 and must have a heating seasonal performance factor (HSPF) of at least 9.
 - If placed in service between Feb. 18, 09 and Dec. 31, 10
Central AC must meet the highest efficiency tier set by the Consortium for Energy Efficiency for 2009- SEER of at least 16 and an EER of at least 13 for most air conditioners.
Electric heat pumps must meet the highest efficiency tier set by the Consortium for Energy Efficiency for 2009- SEER of at least 15, an EER of at least 12.5, and an HSPF of at least 8.5.
- *Notes: This is about 15-25 percent more efficient than the federal standard that went into effect in January 2006.

Furnaces and Boilers

- If placed in service between Jan. 1, 09 and Feb. 17, 09
Natural gas, propane, or oil furnaces and boilers must have at least a 95 percent Annual Fuel Utilization Efficiency (AFUE)
 - If placed in service between Feb. 18, 09 and Dec. 31, 10
Natural gas or propane furnaces must have at least a 95 percent AFUE
Oil furnaces must have at least a 90 percent AFUE
Natural gas, propane, or oil boilers must have at least a 90 percent AFUE
- *Notes: This is about 15-25 percent more efficient than the federal standard that went into effect in January 2006.

Water Heaters

- If placed in service between Jan. 1, 09 and Feb. 17, 09
 - Electric heat pump water heaters must have an Energy Factor (EF) of 2.0
 - Natural gas, propane, or oil water heaters must have an EF of at least 0.80 or a thermal efficiency rating of at least 90%
 - If placed in service between Feb. 18, 09 and Dec. 31, 10
 - Electric heat pump water heaters must have an EF of 2.0
 - Natural gas, propane, or oil water heaters must have an EF of at least 0.82 or a thermal efficiency rating of at least 90%
- *Notes: This is more than twice as efficient as the current federal standard.
There is no credit for other kinds of electric water heaters.
Only some tankless water heaters and “condensing” or other advanced water heaters currently reach this efficiency level.

Biomass (e.g. corn) stoves

- If placed in service between Jan. 1, 09 and Feb. 17, 09
 - Biomass stoves for space or water heating can run on crops, wood, plants, etc., but must have a thermal efficiency rating of at least 75%.
- If placed in service between Feb. 18, 09 and Dec. 31, 10
 - Biomass stoves for space or water heating can run on crops, wood, plants, etc., but must have a thermal efficiency rating using a lower heating value of at least 75%.

**Currently, the criteria for Energy Star geothermal heat pumps are: for a closed-loop system, 14.1 EER and a coefficient of performance (COP) of at least 3.3. For an open-loop system, 16.2 EER and 3.6 COP. For a direct expansion system, 15 EER and 3.5 COP. In addition, the geothermal heat pumps must include a desuperheater, which helps heat water, or an integrated water heating system.

Missouri: Tax Deduction for Home Energy Efficiency Improvements - In July 2008, the state of Missouri enacted legislation allowing homeowners to deduct from their income taxes the cost of home energy audits and energy efficiency improvements based on recommendations made in such an audit. The tax deduction is valid for expenses of this nature incurred on or after January 1, 2009. The deduction has \$1,000 limit per individual or joint taxpayer return and a \$2,000 cumulative limit per individual or joint taxpayer. All deductions must be taken in the year in which the expenses were incurred. A taxpayer may not take a deduction for work that received any sort of incentive or rebate through the state or through a utility-sponsored program. This tax incentive will expire on December 31, 2013.

Audits must be performed by a home energy auditor certified by the Missouri Department of Natural Resources (DNR). The program website contains a directory of

certified auditors and instructions for becoming a certified auditor for the purpose of this incentive.

Missouri: Sales Tax Holiday for Energy-Efficient Appliances - Beginning in 2009, the state of Missouri is offering consumers a seven-day exemption from sales taxes on certain Energy Star certified new appliances up to \$1,500 per appliance (purchase price). The sales tax holiday will last from April 19 - April 25 each year for the following appliances*:

- Clothes washers
- Clothes dryers*
- Water heaters
- Trash compactors*
- Dishwashers
- Conventional ovens, ranges, and stoves*
- Air conditioners
- Furnaces
- Refrigerators
- Freezers

Political subdivisions that collect local sales taxes may allow the sales tax holiday by adopting an ordinance to that effect and notifying the Missouri Department of Revenue (DOR) at least 45 days in advance of the holiday. The DOR maintains a list of participating cities, counties, and districts on the program website. The exemption does not apply to retailers if less than 2% of their merchandise qualifies for the holiday, in which case the retailer must offer customers a sales tax refund in lieu of the sales tax holiday. The state sales tax rate is 4.225%. Further information on local sales taxes is available from the DOR.

It is important to note that clothes dryers, ovens, ranges, stoves, and trash compactors are not currently rated under the EPA Energy Star system. Thus, for the time being, purchases of all such appliances **will not be eligible for the exemption and will be assessed sales tax at the normal rate.*

Kansas: Renewable Energy Property Tax Exemption - This statute exempts renewable energy equipment from property taxes. Renewable energy includes wind, solar thermal electric, photovoltaic, biomass, hydropower, geothermal, and landfill gas resources or technologies that are actually and regularly used predominantly to produce and generate electricity. In addition, beginning in the 2002 tax year all personal property used to collect, refine, and treat landfill gas or transport landfill gas from a landfill to a transmission pipeline (i.e., not necessarily used for electricity generation) is also exempt from property taxes. This provision was added by SB 192 of 2005.

Kansas: Kansas Energy Efficiency Program (KEEP) - The Kansas Housing Resources Corporation (KHRC) launched a statewide initiative to promote energy conservation and

reduce home heating costs for homeowners. KHRC will provide 50% of the total loan amount, up to \$10,000 with no interest. The remaining 50% of the loan amount comes from [Sunflower Bank](#), a family-owned bank with 34 locations throughout Kansas and Colorado. Sunflower Bank will charge interest on the money they lend, but the zero-interest portion provided by the state makes the blended rate lower than a normal second mortgage loan. Loans obtained through KEEP can be used to purchase a variety of HVAC and weatherization equipment, as well as certain energy efficient appliances. Equipment must meet the efficiency requirements specified by KHRC. Interested homeowners can apply for this program through Sunflower Bank.

MGE Customers

-Energy Sense is MGE's water heater rebate program. Replace your old water heater with an Energy Star rated natural gas model and MGE will provide you with a \$200.00 rebate or bill credit for a qualifying tankless system or \$40 for a qualifying tank.

-MGE's preferred plumbers offer their own additional discounts on qualifying tanks and tankless systems.

KCP&L Customers

-Home Performance with ENERGY STAR is KCP&L's rebate program for customers who implement at least one energy efficiency improvement that is recommended by a Home Performance with Energy Star certified contractor or consultant. This rebate has a maximum of \$600.00. (This program is available for Missouri customers only.)

-Cool Homes is a rebate program that helps KCP&L customers maintain the operating efficiency of central A/C systems and offsets the cost of upgrading to a new high-efficiency system. KCP&L offers instant rebates up to \$850 through participating HVAC dealers toward the purchase of a new energy-efficient A/C or heat pump.

-Check www.kcpl.com under residential for other program information and energy saving tips.

Bibliography

U.S. Department of Energy www.energy.gov/taxbreaks.htm

Alliance to Save Energy <http://ase.org/content/article/detail/2654>

ICC International Residential Code 2003 (Chapter 11 Energy Efficiency)

ICC International Energy Conservation Code 2009

Missouri Gas Energy www.missourigasenergy.com

Kansas City Power & Light www.kcpl.com

Database of State Incentives for Renewables & Efficiency www.dsireusa.org