

## Congress Extends and Modifies Energy Efficiency Tax Incentives for Appliances, New Homes and Retrofits to Existing Homes

Congress recently completed action on tax legislation that modifies and extends three energy efficiency tax incentives, as a part of a much larger tax package. These tax incentives will continue to help raise the market share of efficient appliances, HVAC and insulation products, and new homes.

The legislation extends the [new homes](#) tax credit to cover 2010 and 2011 – this \$2,000 credit goes to the home builders and is for homes that use no more than half the energy of homes that just meet the 2003 national model energy code. The credit expired at the end of 2009 but the new bill extends this to cover new homes that are built in 2010 and 2011.

The bill also extends and updates [manufacturer appliance tax credits](#) for 2011 – the credit, which goes to manufacturers directly, is extended for one year, and the following criteria now apply:

- Dishwashers
  - \$25 - models using no more than 307 kWh/year and 5.0 gallons of water/cycle (this is the ENERGY STAR level effective July 1, 2011)
  - \$50 - models using no more than 295 kWh/year and 4.25 gallons of water/cycle
  - \$75 - models using no more than 280 kWh/year and 4 gallons of water/cycle
- Clothes Washers
  - \$175 – top-loading models that meet/exceed 2.2 MEF and do not exceed 4.5 WCF
  - \$225 – top-loading models that meet/exceed 2.4 MEF and do not exceed 4.2 WCF, or front-loading models that meet/exceed 2.8 MEF and do not exceed 3.5 WCF
- Refrigerators
  - \$150 – models that use 30% less energy relative to federal standard
  - \$200 – models that use 35% less energy relative to federal standard

The legislation extends the Section 25C [heating and cooling equipment](#) and [building envelope](#) tax incentives for another year but at reduced levels. The new bill extends eligibility to the end of 2011, but generally reduces the incentive to the original 10% up to \$500. Included are provisions which:

- limit window incentives to \$200;
- limit oil and gas furnace and boiler incentives to \$150, plus an additional \$50 for efficient furnace fans;
- limit air conditioner, heat pump, water heater, and wood heating system incentives to \$300;
- loosen the qualification for window incentives (ENERGY STAR windows now qualify);
- tighten the specifications for oil furnaces and boilers and gas boilers to 95% efficiency, up from the 90% efficiency in current law; and
- tighten the specification for wood stoves by using a more stringent test procedure.

Congress is likely to consider further extensions of these incentives into 2012 and beyond next year, and the Tax Incentives Assistance Project ([TIAP](#)) will provide updates as they become available. The existing homes incentives are likely to receive a major overhaul, and there are also likely to be discussions about improving incentives for energy efficiency investments in commercial buildings, incentives which under current law continue until the end of 2013.

While Congress extended most of the expiring federal energy efficiency tax incentives, it did not extend the incentive for [hybrid trucks and buses](#).



**Tax Incentives Assistance Project Summary of Energy Efficiency Tax Incentives**

For more information see: [www.energytaxincentives.org](http://www.energytaxincentives.org)

Product	Eligibility Information	Amount of Incentive	Years Covered	Notes
<b>Existing Homes and other Non-Business Applications</b>				
			2009-2010	\$1500 per taxpayer cap for existing home energy efficiency incentives
			2011	\$500 per taxpayer cap for existing home energy efficiency incentives
<b>Central air conditioners and air-source heat pumps</b>	Must achieve highest efficiency tier established by CEE as of 1/1/2009. For most equipment, this is SEER 16.	30% of the cost of installation (includes materials and labor) costs, up to \$300	2009-2010 2011	For list of qualified products, go to the Consortium for Energy Efficiency Product Directory web site: <a href="http://www.ceedirectory.org/">http://www.ceedirectory.org/</a>
<b>Water heaters (non-business applications)</b>				
Electric	2.0 EF	30% of the cost of installation (includes materials and labor)	2009-2010	See AHRI Web site for list of qualifying products:  <a href="http://www.ahrinet.org/Content/FederalEnergyEfficiencyTaxCredits_853.aspx">www.ahrinet.org/Content/FederalEnergyEfficiencyTaxCredits_853.aspx</a>
Gas and oil	0.82 EF *or a thermal efficiency of at least 90%	costs, up to \$300	2009-2010	
Electric	2.0 EF	costs, up to \$300	2011	
Gas and oil	0.82 EF *or a thermal efficiency of at least 90%	costs, up to \$300	2011	
<b>Gas and oil furnaces and boilers</b>				See AHRI Web site (link above) for list of qualifying products. There is also an incentive (an additional \$50) for furnace fans.
Furnaces (gas & propane)	95 AFUE	30% of the cost of installation (includes materials and labor)	2009-2010	Check the TIAP site for details. <a href="http://www.pelletheat.org">See www.pelletheat.org for more information</a>
Boilers and oil furnaces	90 AFUE	costs, up to \$150	2009-2010	
Furnaces (gas & propane) and Boilers and oil furnaces	95 AFUE		2011	
<b>Biomass stoves</b>	Thermal efficiency of 75%	30% of the cost of installation (includes materials and labor) costs, up to \$300	2009-2010 2011	
<b>Envelope improvements to existing homes</b>				
Insulation, duct sealing and infiltration reduction Roofs made of metal with pigmented coatings or asphalt with cooling granules.	Meet 2009 IECC & supplements Meet Energy Star spec	30% of the cost of installation (includes materials and labor)	2009-2010, 2011 2009-2010, 2011	Includes duct sealing and infiltration reduction. All Energy Star windows and doors qualify for credits. Credits cover cost of components only, and do not include costs of onsite prep, assembly or installation.
Exterior doors, windows and skylights	Equal to or below 0.30 U factor and SHGC of 0.30	30% of the cost of installation (includes materials and labor)	2009-2010	
Exterior doors, windows and skylights	Energy Star	10% of the material cost, up to \$200	2011	
<b>Appliances</b>				
<b>Refrigerators</b>				
Save 25-29.9% relative to federal standard	Look to left	\$100	2008-2010	MEF: Modified Energy Factor. The higher the MEF, the more efficient the unit.
Save 30% or more relative to federal standard	Look to left	\$200	2008-2010	
Save 30% less energy relative to federal standard	Look to left	\$150	2011	WCF: Water Consumption Factor. The lower the WCF, the more water efficient the unit.
Save 35% less energy relative to federal standard	Look to left	\$200	2011	
<b>Clothes washers</b>				
Meet/Exceed 2.0 MEF, do not exceed 6.0 WCF	Residential or commercial	\$150	2008-2010	The credit to manufacturers is capped at \$75 million for the period of 2008 - 2010. The most efficient refrigerators (30%) and clothes washers (2.2 MEF/4.5 WCF) are exempted from this cap.
Meet/Exceed 2.2 MEF, do not exceed 4.5 WCF	Residential or commercial	\$250	2008-2010	
Meet/Exceed 2.2 MEF, do not exceed 4.5 WCF	Residential or commercial, top-loading	\$175	2011	
Meet/Exceed 2.4 MEF, do not exceed 4.2 WCF	Residential or commercial, front-loading	\$225	2011	
Meet/Exceed 2.8 MEF, do not exceed a 3.5 WCF	Residential or commercial, top-loading	\$225	2011	
<b>Dishwashers</b>				
Models using no more than 307 kilowatt hours/year and 5.0 gallons of water/cycle (5.5 gallons/cycle for dishwashers)		\$75	2008-2010	The credit to manufacturers is capped at \$25 million for 2011. The most efficient refrigerators (35%) and clothes washers (2.8 MEF/3.5 WCF) are exempted from this cap.
Models using no more than 307 kilowatt hours/year and 5.0 gallons of water/cycle (ENERGY STAR level effective July 1, 2011)		\$25	2011	
Models using no more than 295 kilowatt hours/year and 4.25 gallons of water/cycle		\$50	2011	
Models using no more than 280 kWh kilowatt hours/year and 4 gallons of water/cycle		\$75	2011	
<b>New Homes</b>				
Site-built or manufactured homes	50% savings	\$2,000	2006-2009, 2010-11	Incentives go to the builder, not the homebuyer. Savings relative to 2004 IECC.
Manufactured homes	30% savings or meets Energy Star	\$1,000	2007-2009, 2010-11 2008-2009, 2010-11	
<b>Commercial Buildings</b>				
Whole building	50% savings	Deduction of \$1.80/sq.ft.	2006-2013	Max. is \$0.60/sq.ft. per system or \$1.80/sq.ft. for whole bldg.
Lighting, HVAC or envelope	50% savings	Deduction of \$0.60/sq.ft. per system	2006-2013	Savings relative to ASHRAE 90.1-2001.
Lighting savings of at least 25%	25-50% savings	Sliding scale: \$.30/sq.ft. for 25% svgs	Unclear	Savings relative to ASHRAE 90.1-2001. Term of this provision depends on Treasury rulemaking.
<b>Combined Heat and Power</b>	10% investment tax credit, applicable to the first 15MW of CHP property.			<a href="http://www.energytaxincentives.org/business/chp.php">See www.energytaxincentives.org/business/chp.php for details.</a>
<b>Fuel Cells and Microturbines</b>				
<b>Fuel Cells: Businesses, utilities, telecommunications firms</b>	30% efficiency	30% up to \$3000/kW	2006-2016	Systems >=0.5 kW for credit. The increase to \$3,000/kW incentive for businesses is valid for units placed in service after October 3, 2008. Prior to that the incentive is \$1,000/kW.
<b>Fuel Cells: Residential</b>	30% efficiency	30% up to \$1000/kW	2006-2016	
<b>Microturbines (only business credit)</b>	26% efficiency	10% up to \$200/kW	2006-2016	Systems < 2000 kW.
<b>On-Site Renewables</b>				
Solar Water Heating and Solar Photovoltaic (PV) Systems		30% up to \$2,000*	2006-2016 2006-2016	* On-site renewable property installed after December 31, 2008 is not subject of any cap or restriction beyond the 30% of its installed cost.
On-Site Small Wind	100 kW capacity or less	30% up to \$4,000*	2008-2016	Additional restrictions apply. See TIAP Web site for details.
Geothermal Heat Pumps	30% of expenditures		2008-2016*	<a href="http://www.geoexchange.org/">See http://www.geoexchange.org/ for more information</a>
<b>Vehicles</b>				
Passenger hybrid and alternative-fuel vehicles, and plug-in electric vehicles	<a href="http://aceee.org/transportation/hybtaxcred.htm">See http://aceee.org/transportation/hybtaxcred.htm for details on credit calculation</a>		Dependent on manufacturer sales	

Key: AC= air conditioner; AFUE= annual fuel utilization efficiency; ASHRAE = American Society of Heating, Refrigerating & Air-Conditioning Engineers; CEE = Consortium for Energy Efficiency  
COP= coefficient of performance; EER= energy efficiency ratio; EF= energy factor; HP= heat pump; HSPF= heating season performance factor; IECC= International Energy Conservation Code  
kW= kilowatt; MEF= modified energy factor; SEER= seasonal energy efficiency ratio; WF= water factor.