

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](#).

Product	Eligibility Information	Amount of Incentive	Years Covered	Notes
Existing Homes and other Non-Business Applications			2009-2010	\$1500 per taxpayer cap for existing home energy efficiency incentives
			2011	\$500 per taxpayer cap for existing home energy efficiency incentives
Central air conditioners and air-source heat pumps	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: http://www.ceedirectory.org/
Water heaters (non-business applications)				See AHRI Web site for list of qualifying products:
Electric	2.0 EF	30% of the cost of installation (includes materials and labor) costs, up to \$300	2009-2010	www.ahrinet.org/Content/FederalEnergyEfficiencyTaxCredits_853.aspx
Gas and oil	0.82 EF *or a thermal efficiency of at least 90%		2009-2010	
Electric	2.0 EF		2011	
Gas and oil	0.82 EF *or a thermal efficiency of at least 90%		2011	
Gas and oil furnaces and boilers				See AHRI Web site (link above) for list of qualifying products.
Furnaces (gas & propane)	95 AFUE	30% of the cost of installation (includes materials and labor) costs, up to \$150	2009-2010	There is also an incentive (an additional \$50) for furnace fans.
Boilers and oil furnaces	90 AFUE		2009-2010	
Furnaces (gas & propane) and Boilers and oil furnaces	95 AFUE		2011	
Biomass stoves	Thermal efficiency of 75%	30% of the cost of installation (includes materials and labor) costs, up to \$300	2009-2010 2011	Check the TIAP site for details. See www.pelletheat.org for more information
Envelope improvements to existing homes				Includes duct sealing and infiltration reduction.
Insulation, duct sealing and infiltration reduction	Meet 2009 IECC & supplements	30% of the cost of installation (includes materials and labor)	2009-2010	All Energy Star windows and doors qualify for credits. Credits cover cost of components only, and do not include
Roofs made of metal with pigmented coatings or asphalt with cooling granules.	Meet Energy Star spec		2009-2010	
Insulation, duct sealing and infiltration reduction	Meet 2009 IECC & supplements	10% of the material cost, up to \$500	2011	costs of onsite prep, assembly or installation.
Roofs made of metal with pigmented coatings or asphalt with cooling granules.	Meet Energy Star spec	10% of the material cost, up to \$500	2011	
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	
Appliances				<i>All appliance incentives go to manufacturer, not consumer; manufacturers are expected to reduce prices accordingly.</i>
Refrigerators				MEF: Modified Energy Factor. The higher the MEF, the more efficient the unit.
Save 25-29.9% relative to federal standard	Look to left	\$100	2008-2010	
Save 30% or more relative to federal standard	Look to left	\$200	2008-2010	WCF: Water Consumption Factor. The lower the WCF, the more water efficient the unit.
Save 30% less energy relative to federal standard	Look to left	\$150	2011	
Save 35% less energy relative to federal standard	Look to left	\$200	2011	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.
Clothes washers				
Meet/Exceed 2.0 MEF, do not exceed 6.0 WCF	Residential or commercial	\$150	2008-2010	
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	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.
Dishwashers				
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	
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	Incentives go to the builder, not the homebuyer.
Models using no more than 280 kWh kilowatt hours/year and 4 gallons of water/cycle		\$75	2011	
New Homes				Savings relative to 2004 IECC.
Site-built or manufactured homes	50% savings	\$2,000	2006-2009, 2010-11	
Manufactured homes	30% savings or meets Energy Star	\$1,000	2007-2009, 2010-11 2008-2009, 2010-11	
Commercial Buildings				Max. is \$0.60/sq.ft. per system or \$1.80/sq.ft. for whole bldg.
Whole building	50% savings	Deduction of \$1.80/sq.ft.	2006-2013	Savings relative to ASHRAE 90.1-2001.
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	Term of this provision depends on Treasury rulemaking.
Combined Heat and Power	10% investment tax credit, applicable to the first 15MW of CHP property.			See www.energytaxincentives.org/business/chp.php for details.
Fuel Cells and Microturbines				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.
Fuel Cells: Businesses, utilities, telecommunications firms	30% efficiency	30% up to \$3000/kW	2006-2016	Systems < 2000 kW.
Fuel Cells: Residential	30% efficiency	30% up to \$1000/kW	2006-2016	
Microturbines (only business credit)	26% efficiency	10% up to \$200/kW	2006-2016	
On-Site Renewables				* On-site renewable property installed after December 31, 2008 is not subject to any cap or restriction beyond the 30% of its installed cost.
Solar Water Heating and Solar Photovoltaic (PV) Systems		30% up to \$2,000*	2006-2016	Additional restrictions apply. See TIAP Web site for details. See http://www.geoexchange.org/ for more information
On-Site Small Wind	100 kW capacity or less	30% up to \$4,000*	2006-2016	
Geothermal Heat Pumps	30% of expenditures		2008-2016*	
Vehicles				Dependent on manufacturer sales
Passenger hybrid and alternative-fuel vehicles, and plug-in electric vehicles	See http://aceee.org/transportation/hybtaxcred.htm for details on credit calculation			

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.