

Florida Solar Energy Center

Creating Energy Independence Since 1975

Energy Tax and Rebate Incentives

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Tax Credits and Deductions (

\$1000 as a

- Credit = \$1000
- ❖ Deduction = \$1000 x tax rate
 - \rightarrow assume 28% tax rate=> \$1000 x 0.28 = \$280





Notice 2006-52

* This notice sets forth interim guidance, pending the issuance of regulations, relating to the deduction for energy efficient commercial buildings under § 179D of the Internal Revenue Code.





- Sections 179D(d)(1) and 179D(f) allow a deduction to a taxpayer for part or all of the cost of certain partially qualifying commercial building property that the taxpayer places in service after December 31, 2005, and before January 1, 2008.
- ❖ [Legislators are considering extending credit until 2015]



It is certified that the interior lighting systems, heating, cooling, ventilation, and hot water systems, and building envelope that are incorporated into the building, will reduce the total annual energy and power costs with respect to combined usage of the building's heating, cooling, ventilation, hot water, and interior lighting systems by 50 percent or more as compared to a Reference Building that meets the minimum requirements of Standard 90.1-2001.



The required 50-percent reduction must be accomplished solely through energy and power cost reductions for the heating, cooling, ventilation, hot water, and interior lighting systems. Reductions in any other energy uses, such as receptacles, process loads, refrigeration, cooking, and elevators, are not taken into account in determining whether the 50- percent reduction is achieved.



- Shall not exceed the excess (if any) of--
- (i) \$1.80 x the square footage of the building, over
- (ii) the aggregate amount of the § 179D deductions allowed with respect to the building for all prior taxable years.





- Lighting will meet either a or b
 - a. will reduce the total annual energy and power costs with respect to combined usage of the building's heating, cooling, ventilation, hot water, and interior lighting systems by 16% % or more as compared to a Reference Building that meets the minimum requirements of Standard 90.1-2001.



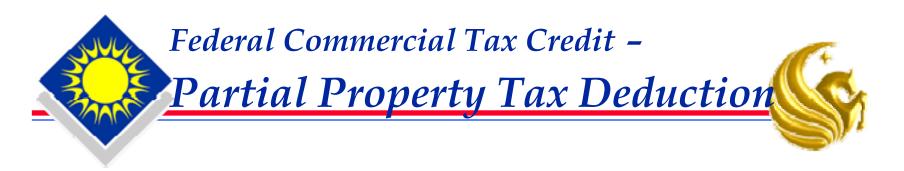
- Lighting will meet either a or b. Method b:
 - > (i) Achieve a reduction in lighting power density of at least 25 percent (50 percent in the case of a warehouse) of the minimum requirements in Table 9.3.1.1 or Table 9.3.1.2 (not including additional interior lighting power allowances) of Standard 90.1-2001;
 - (ii) Have controls and circuiting that comply fully with the mandatory and prescriptive requirements of Standard 90.1-2001;
 - (iii) Include provision for bi-level switching in all occupancies except hotel and motel guest rooms, store rooms, restrooms, and public lobbies; and
 - (iv) Meet the minimum requirements for calculated lighting levels as set forth in the IESNA Lighting Handbook, Performance and Application, NinthEdition, 2000.



- Heating, Cooling, Ventilation and Hot Water
 - will reduce the total annual energy and power costs with respect to combined usage of the building's heating, cooling, ventilation, hot water, and interior lighting systems by 16²/₃% or more as compared to a Reference Building that meets the minimum requirements of Standard 90.1-2001.



- Energy Efficient Building Envelope Property
 - will reduce the total annual energy and power costs with respect to combined usage of the building's heating, cooling, ventilation, hot water, and interior lighting systems by 16²/₃% or more as compared to a Reference Building that meets the minimum requirements of Standard 90.1-2001.



- Shall not exceed the excess (if any) of--
 - > (i) \$0.60 x the square footage of the building for each partial property element, over
 - ➤ (ii) the aggregate amount of the § 179D deductions allowed with respect to the building for all prior taxable years.











- Certificate certificate must include ten item list of information from address to a list identifying the energy components
- Software must be listed by DOE and must pass (ANSI/ASHRAE) Standard 140-2004 Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs – [Florida's EnergyGauge will be modified and tested]
- Tax Payer does not need to send in certificate but should keep it on file



Residential







- ❖ 2006 and 2007 time frame
- * Homes must reduce energy use for heating and cooling only (not hot water) by 50% compared to the national model code the 2004 IECC Supplement (assuming an SEER-13 air conditioner)
- Must use approved software to determine compliance [EnergyGauge USA is approved]



- Windows SHGC 0.28
- White barrel tile roof, R30 ceiling insulation
- Block with R7.6 insulation
- Sealed and Tested Duct System
- SEER 15 Air Conditioning
- Programmable Thermostat
- Energy Star Ceiling Fans, Refrigerator
- 72% Fluorescent lighting



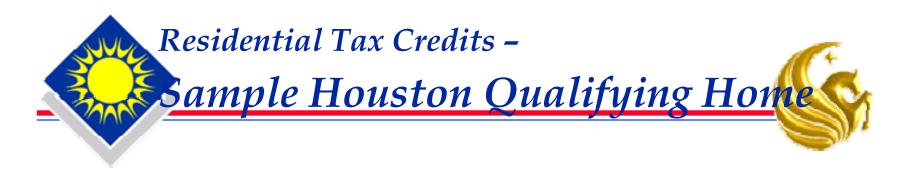


- Windows SHGC 0.28
- White barrel tile roof, R30 ceiling insulation
- Block with R7.6 wall insulation
- Sealed and Tested Duct System
- SEER 16 HSPF 9 Heat Pump
- Programmable Thermostat
- Energy Star Ceiling Fans, Refrigerator
- 72% Fluorescent lighting





- Windows SHGC 0.40, U-value 0.47
- Wood frame walls with R-13 in cavity
- White shingle with R30 ceiling insulation
- Sealed and Tested Duct System
- SEER 14 HSPF 7.8 Heat Pump
- Programmable Thermostat
- Energy Star Refrigerator and Dishwasher
- 70% Fluorescent lighting



- ❖ Windows SHGC 0.28, U-value 0.57
- Wood frame walls with R-13 in cavity
- White shingle with R30 ceiling insulation
- Sealed and Tested Duct System
- SEER 14 HSPF 7.8 Heat Pump
- Programmable Thermostat
- Energy Star Refrigerator and Dishwasher
- 70% Fluorescent lighting



- Windows SHGC 0.55, U-value 0.47
- Wood frame walls w R-13 in cavity +R5 sheathing
- R30 crawlspace, R48 ceilings
- Sealed and Tested Duct System
- SEER 13, Natural Gas 0.94 AFUE furnace
- Programmable Thermostat
- Default appliances and lighting





- Windows SHGC 0.55, U-value 0.33
- Wood frame walls w R-13 in cavity +R5 sheathing
- * R48 attic insulation with dark roof
- Basement -- R15 walls and R19 ceiling of basement
- Sealed and Tested Duct System
- SEER 13, Natural Gas 0.94 AFUE furnace
- Programmable Thermostat
- Default appliances and lighting







- Goes to HomeBuilder
- ◆ \$2000 per home







Residential Tax Credits - Site Inspections



- Certifier inspects dwelling and confirms all features affecting heating and cooling energy consumption comply with the design specifications provided.
- ❖ With respect to builders who build at least 85 homes a year or build subdivisions with the same floor plan using the same subcontractors, the eligible certifier may use the sampling protocol found in the current ENERGY STAR® for Homes Sampling Protocol Guidelines instead of inspecting all of the homes. The protocol guidelines can be found at:
- http://www.energystar.gov/index.cfm?c=bldrs_lendersers.pt_homes_policies#SamplingProtocol





30% reduction in home energy use









- Goes to HomeBuilder
- ❖ \$1000 per home









Credit is for Qualifying Energy-Efficient Property and Improvements





- Any insulation material or system specifically designed to reduce heat loss or gain
- Exterior windows (including skylights)
- Exterior doors
- Any metal roof having pigmented coatings specifically designed to reduce heat gain which meet Energy Star program requirements.

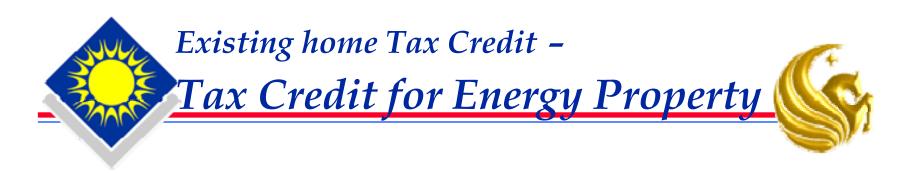


- ❖ 10% of the amount expended
- up to a maximum existing home credit limit of \$500





- Electric heat pump water heater with EF of 2.0 or greater
- ❖ Electric air source heat pumps with HSPF of 9.0 or greater
- Geothermal heat pumps (EER varies with type)
- Central air conditioner that receives the highest efficiency tier established by the Consortium of Energy Efficiency
- ❖ Gas or oil water heater with EF or 0.80 or greater
- Gas or oil furnace or boiler with AFUE of 95% or greater
- Advanced main air circulating fan used in gas or oil furnace that uses no more than 2% of the total annual energy use of the furnace.



- \$50 for any advanced main air circulating fan
- ❖ \$150 for any qualified natural gas, propane, or oil furnace or hot water boiler
- \$300 for any other item of qualified energy property
- up to a maximum existing home credit limit of \$500



Existing home Tax Credit Taxnauer responsibility



- * Taxpayer Reliance. Except as provided in section 4.02(3) and (6) of this notice, a taxpayer may rely on a manufacturer's certification that a building envelope component is an Eligible Building Envelope Component. A taxpayer is not required to attach the certification statement to the return on which the credit is claimed.
- However, 1.6001-1(a) of the Income Tax Regulations requires that taxpayers maintain such books and records as are sufficient to establish the entitlement to, and amount of, any credit claimed by the taxpayer. Accordingly, a taxpayer claiming a credit for an Eligible Building Envelope Component should retain the certification statement as part of the taxpayer's records



- (a) The name and address of the manufacturer;
- (b) Identification of the component as an insulation material or system, an exterior window or skylight, an exterior door, or a metal roof;
- (c) The make, model number, and any other appropriate identifiers of the component;
- (d) A statement that the component is an Eligible Building Envelope Component that qualifies for the credit allowed under § 25C;
- (e) In the case of an exterior window, skylight, or door (other than a storm window or storm door), the climate zone or zones for which the applicable prescriptive criteria are satisfied;
- (f) In the case of a storm window- the applicable window and climate type
- (g) A declaration, signed by authorized person to bindthe manufacturer.
- "Under penalties of perjury, I declare that I have examined this certification statement, and to the best of my knowledge and belief facts are true, correct, and complete."



* For solar hot water systems, the allowable tax credit is 30% of the qualified solar system expenditures up to a maximum tax credit limitation of \$2,000.







* For solar electric (photovoltaic) systems, the allowable tax credit is 30% of the qualified solar system expenditures up to a maximum tax credit limitation of \$2,000.









- * Increases from 10% (pre-2006) to 30% for investments in solar thermal and solar photovoltaic.
- No dollar limit.









What is the most I can get for retrofitting my home (non-solar)?

..

***** \$500







Who gets the new home tax credit (Site-built) and how much is it worth?

***** ...

❖ The builder and \$2000







What energy level must be achieved to qualify for the new home tax credit (Site-built)?

..

❖ 50% heating and cooling with at least 10% from the envelope







What is the most I can get for my commercial building improvements (non-solar)?

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\$1.80/square-foot







What is the most I can get for a residential solar hot water system?

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❖ 30% not to exceed \$2000

