POWERFUL $AVINGS

A Partnership of the U. S. Department of Energy and the Alliance to Save Energy

New Energy-Efficiency Home and Vehicle Tax Credits

Energy Efficiency Can Lower Your Federal Tax Bill as Well as Your Energy Bills

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1. Introduction to Tax Credits

The Energy Policy Act of 2005, the new national energy law signed by President Bush on August 8, 2005, provides valuable federal tax credits for consumers who purchase fuel-efficient *hybrid-electric vehicles* and who make certain, specified energy-efficiency *upgrades to their homes.*

Consumers who employ energy-efficient products in their homes or drive fuel-efficient vehicles enjoy multiple benefits. At home, these benefits include lower home energy bills, increased indoor comfort, and reduced air pollution. On the road, consumers will increase their gas mileage so they lower their gasoline costs, and they will dramatically reduce the amount of air pollution from their vehicles.

In addition to helping savvy consumers lower their energy bills at home and on the road, the energy-efficient products eligible for the new federal tax credits actually lower the amount of federal income taxes that these taxpayers must pay Uncle Sam.

What is a tax credit? You don't receive an income tax credit when you buy the product, like an instant rebate. You claim the credit on your federal income tax form at the end of the year. The credit then increases the tax refund you receive or decreases the amount you have to pay.

Tax credits vs. tax deductions. In general a *tax credit* is more valuable than a similar *tax deduction*. A tax credit reduces the tax you pay, dollar-for-dollar. Tax deductions – such as those for home mortgages and charitable giving, for example – lower your taxable income. If you are in the highest 30 percent tax bracket, your income tax is reduced by 30 percent of the value of a tax deduction. But a tax credit reduces your federal income tax by 100 percent of the amount of the credit.

Please note: We at the Alliance to Save Energy are experts on energy efficiency, not taxes, and we do not provide tax advice; you may want to consult a tax professional.

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2. Tax Credit Examples

Here are examples of how much you might save if you took advantage of these tax credits. They are illustrative only, as exact savings will vary from one taxpayer to another:

Purchase	Tax savings	Annual energy savings	Notes
Hybrid car	$2,500-$3,000	$820	For a Toyota Prius
Central air conditioner	$300	$270	In Houston
Furnace or boiler	$150	$570	In Chicago
Windows	Up to $200	$270	Replace all windows (single-pane) with Energy Star windows in the Midwest
Insulation	Up to $500	$760	Add insulation to ceiling and un-insulated basement in Chicago

The tax credits take effect in January 2006, and most will only be available in 2006 and 2007, unless Congress extends them.

In some areas of the country, consumers also will be eligible for utility or state rebates or state tax incentives for the same homes, vehicles, and equipment. Contact your state energy office or local utility for more information.

To find energy-efficient products in your area, check out the shopping area of the Alliance to Save Energy's web site, http://www.ase.org/section/_audience/consumers/eeshopping/.

Tax Credits Available to Businesses

Businesses (and, indirectly, governments and nonprofit groups) also can get the tax credit for purchasing hybrid vehicles. And a tax credit for efficient commercial buildings is available to businesses as well.

Businesses that sell certain other energy-efficient consumer products (see below) will be eligible for new federal income tax credits in 2006 and 2007. While these credits do not go directly to consumers, they could reduce the cost to consumers of:

- New energy-efficient homes;
- Energy-efficient refrigerators, clothes washers, and dishwashers.

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3. Hybrid Vehicle Tax Credit

You can get an income tax credit of $250-$3,400 for buying or leasing a new hybrid gas-electric automobile.

Who gets it? Individuals and businesses that buy or lease a hybrid car or truck. If you buy more than one eligible hybrid vehicle, you can get a tax credit for each vehicle. If a tax-exempt organization buys such a vehicle, the retailer may take the credit.

What vehicles qualify? Hybrid vehicles that use less gasoline than the average vehicle of similar weight and that meet an emissions standard. "Lean-burn" diesel vehicles also could qualify, but currently-available diesel vehicles do not meet the emissions standard. There is a similar credit for alternative-fuel vehicles and for fuel-cell vehicles, but these are not widely available.

How much is the credit? The tax credit amount could range from $250 to $3,400 depending on the fuel economy and the weight. See the appendix (Section 6.1) the actual formula. For example, Toyota believes that Prius buyers

could receive between $2,500 and $3,000. The IRS most likely will determine the amount for each vehicle. Also, companies that buy heavy-duty hybrid trucks can get a larger tax credit.

When is it available? The new tax credit is for vehicles "placed in service" beginning January 1, 2006—but because there is a waiting list for many hybrids, note that you can get the tax credit if you arrange to purchase the vehicle this year as long as you do not take possession of the vehicle until January 1, 2006.

Are there any other limitations on the tax credit? The vehicle tax credit will be phased out for each manufacturer once that company has sold 60,000 eligible vehicles. At that point, the tax credit for that company's vehicles will be gradually reduced over the course of another year. See the appendix (Section 6.2) for the phase-out schedule.

What do I need to do to get the vehicle tax credit? The IRS will write rules on how to claim the tax credit and will publish any necessary forms. At the least, you will need to keep receipts proving that you purchased or leased an eligible vehicle. Accountants and tax advisors should also be able to provide more guidance.

Isn't there a tax incentive now for hybrid vehicles? Yes, there is a $2,000 tax deduction for hybrid vehicles for the remainder of 2005. See the appendix (Section 6.3) for more information on the 2005 tax deduction. This generally will be worth less than the new tax credit.

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4. Home Energy-Efficiency Improvement Tax Credit

You can get a one-time tax credit of up to $500 in total for installing efficient new windows, insulation, doors, roofs, and heating and cooling equipment in your home.

Who gets it? Individuals who install specific energy-efficient home improvements.

What energy-efficient home improvements are eligible? The overall $500 cap can be reached in several ways with the purchase and installation of energy-efficient products:

- **Exterior windows (including skylights)** 10 percent of the total cost, up to $200.
- **Insulation, exterior doors, or pigmented metal roofs:** 10 percent of the total cost, up to $500. Duct sealing and weather stripping or foam sealants may also qualify for the credit, depending on the IRS rules.
- **Central air conditioner, heat pump, or water heater:** up to $300 towards the full purchase price.
- **Furnace or boiler:** up to $150 towards the full purchase price, and/or $50 for a furnace with an efficient air circulating fan. See the appendix (Section 6.4) for detailed criteria for heating and cooling equipment.

In addition, to be eligible for the federal tax credits:

- **Windows, doors, and insulation** must meet the requirements of the International Energy Conservation Code, a model energy code for buildings. ENERGY STAR windows will almost always qualify.
- **Metal roofs** must have pigmented coatings that meet ENERGY STAR requirements.
- **Heating and cooling equipment** must meet stringent efficiency requirements – not even all ENERGY STAR products will qualify. Manufacturers and retailers likely will be able to tell you which products qualify. See the appendix (Section 6.4) for detailed criteria for heating and cooling equipment.

All the improvements must be installed in or on the taxpayer's principal residence in the United States.

When are they available? The home improvement tax credits apply for improvements "placed in service" from January 1, 2006, through December 31, 2007. They are not available in 2005. 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.

What do I need to do to get the tax credit? The IRS will write rules on how to claim the tax credit and publish any necessary forms. At the least, you will need to keep receipts proving that you purchased the improvements.

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5. Solar Energy and Fuel Cell Tax Credit

There are also new tax credits for solar energy technologies and for fuel cells. However, fuel cells for homes are not yet commercially available. Please see http://www.seia.org/getpdf.php?iid=21 for more information on the solar tax credit.

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6. APPENDIX INFORMATION

6.1. Hybrid vehicle tax credit amount

The IRS will determine the tax credit for qualifying hybrid (and diesel) models. While the exact amount will depend on IRS rules yet to be determined, the American Council for an Energy-Efficient Economy (ACEEE) has made a preliminary estimate of the credit amount for hybrid vehicles now on the market available. This estimate is available at http://www.aceee.org/transportation/hybtaxcred.htm (note, however, that estimates from other sources differ from ACEEE's).

If you really want to know how the credit is calculated, read on – it's complicated. The tax credit is the sum of a "fuel economy credit" and a "conservation credit," both of which depend on the vehicle's fuel economy compared to the baseline "2002 model year city fuel economy" of a vehicle in the same weight class.

The fuel economy credit depends on the improvement of the fuel economy over the baseline. The credit is as follows, based on the vehicle fuel economy as a percentage of the baseline fuel economy:

Percent of Baseline	Credit Amount
125 to 150 percent	$400
150 to 175 percent	$800
175 to 200 percent	$1,200
200 to 225 percent	$1,600
225 to 250 percent	$2,000
250 percent or more	$2,400

The conservation credit depends on the estimated lifetime fuel savings, expressed in gallons of gasoline. The credit is:

Fuel Savings (gallons)	Credit Amount
1,200 to 1,800	$250
1,800 to 2,400	$500
2,400 to 3,000	$750
3,000 or more	$1,000

Fuel savings are calculated as (120,000 miles divided by baseline mpg) minus (120,000 miles divided by vehicle

6.2. Phase-out of the hybrid tax credit

Once a manufacturer has sold 60,000 hybrid and/or diesel vehicles that qualify for the tax credit, the credit amount for vehicles made by that company is phased out according to the following schedule:

Calendar Quarter	Percentage of Full Credit
When sales reach 60,000	100 percent
1st quarter after	100 percent
2nd quarter	50 percent
3rd quarter	50 percent
4th quarter	25 percent
5th quarter	25 percent
6th quarter and beyond	No credit

Toyota, which currently sells the most hybrid automobiles, is likely to hit the 60,000 mark early in 2006. Some other car companies may take years to reach it. The hybrid and diesel tax credits expire for all cars and light trucks on December 31, 2010, whether or not the manufacturer has sold 60,000 vehicles or reached the end of the phase-out period.

6.3. Current (2005) tax deduction for hybrid vehicles

The new tax credit for hybrid vehicles is not available until January 1, 2006, but current buyers are eligible for an existing tax deduction. Individuals and businesses that buy new hybrid vehicles can claim a tax deduction of $2,000 in 2005.

The deduction is currently available for these models: Toyota Prius, Toyota Highlander Hybrid, Honda Insight, Honda Civic Hybrid, Honda Accord Hybrid, Ford Escape Hybrid, or Lexus RX 400h.

6.4. Criteria for heating and cooling equipment

In order to be eligible for the tax credit, heating and cooling equipment must meet specified measures of energy efficiency:

- **Central air conditioners** must be in the highest efficiency tier set by an organization called the Consortium for Energy Efficiency – currently seasonal energy efficiency ratio (SEER) of at least 15 *and* an energy efficiency ratio (EER) of at least 12.5 for most air conditioners. This is about 15 percent more efficient than the federal standard going into effect in 2006.
- **Electric heat pumps** also must be 15 SEER and 13 EER and must have a heating seasonal performance factor (HSPF) of at least 9.
- **Geothermal heat pumps** must meet current ENERGY STAR criteria – for a closed-loop system, 14.1 EER and a coefficient of performance (COP) of at least 3.3. For an open-loop system, the criteria 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.
- **Natural gas, propane, or oil water heaters** must have an energy factor (EF) of at least 0.80. This is about 20 percent more efficient than the current federal standard. Only some tankless water heaters currently reach this efficiency level.
- **Electric heat pump water heaters** must have an EF of at least 2.0. This is more than twice as efficient as the current federal standard.

Natural gas, propane, or oil furnaces and boilers must have at least a 95 percent annual fuel utilization efficiency (AFUE) to qualify for the $150 credit. To qualify for the $50 tax credit, the furnace air circulating fan must use no more than 2 percent of the total annual energy use of the furnace.

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