

# RESNET Notes

**August 2005**

The Residential Energy Services Network's (RESNET) mission is to improve the energy efficiency of the nation's housing stock and to qualify more families for home ownership, by expanding the national availability of mortgage financing options and home energy ratings. For more information e-mail RESNET at [info@natresnet.org](mailto:info@natresnet.org). Visit RESNET's home page site at: [www.resnet.us](http://www.resnet.us)

\*\*\*\*\*

## **Congress Creates Tax Incentives to Increase Energy Efficiency of Buildings**

After five years of effort and advocacy, Congress created a set of tax incentives to improve the energy performance of the nation's buildings. The tax incentives are part of a national energy act that was signed into law by **President Bush** on August 8, 2005.

The focus of the legislation is on development of oil, gas, and nuclear sources of energy. The energy package negotiated by the conference committee includes measures to spur construction of new nuclear power plants, promote ways to reduce pollution from coal and provide a boon to farmers by requiring refiners to double the use of corn-based ethanol in gasoline to 7.5 billion gallons a year by 2012. The legislation also provides for:

- Subsidies for wind, geothermal and solar industries.
- New efficiency standards for appliances from air conditioners to refrigerators.
- Extension of daylight saving time by a month to save energy.
- Requirements on utilities to meet federal reliability standards for the electric transmission grid.
- Federal regulators having final say over import terminals to ease the way for more imports of liquefied natural gas.
- Loan guarantees and other subsidies

for energy technologies and new nuclear reactors. It would authorize a \$1.8 billion program to promote clean coal technologies.

The legislation includes modest provisions for energy efficiency tax incentives. The incentives for energy efficiency include:

- A 10% cost based credit to homeowners to improve the energy efficiency of existing homes. The maximum credit would be \$500 (\$300 for windows).
- Credit for builders to build energy efficient homes. The credit applies to manufactured homes meeting a 30% reduction and other homes meeting a 50% reduction.
- Deduction for commercial buildings reducing their energy by 50%. The maximum deduction is \$1.80 per square foot of the building.

Now that the legislation is passed, the priority is clear, effective, and cost effective procedures for verifying a building's performance in applying for the tax incentives. RESNET will be advocating for procedures that will ensure that the public's funds are used to achieve verifiable energy savings using the existing infrastructure of building performance professionals.

# ***Understanding the Difference Between Tax Deductions and Tax Credits***

The energy legislation provides both tax deductions and tax credits for improving the energy efficiency of buildings.

There is an important difference between a tax deduction and a tax credit. A **tax deduction** is subtracted from income before total tax liability is computed. On the other hand, a **tax credit** is subtracted directly from the total tax liability. This means that a

deduction and a credit have different values, with a credit being 25%-50% more financially advantageous to the taxpayer than the deduction. The **Florida Solar Energy Center** has calculated that a tax credit of \$1,000 for someone in the 35% tax bracket is equivalent to a tax deduction of \$1,538.

## ***Tax Credit for Improving the Energy Efficiency of Existing Homes***

The law offers the following tax credit for homeowners:

- Cost-based incentives of 10% of the amount expended by the taxpayer for "Qualified Energy Efficiency Improvements" up to a maximum credit limit of \$500. "Qualified Energy Efficiency Improvements" are specifically defined as:
  - Any insulation material or system specifically designed to reduce heat loss or gain
  - Exterior windows (including skylights) - \$300 cap
  - Exterior doors
  - Any metal roof having

pigmented coatings specifically designed to reduce heat gain which meet ENERGY STAR program requirements. The measures must meet the prescriptive requirements of the **2004 Supplement of the International Energy Conservation Code (IECC)**.

- \$50 for advanced main circulating fan
- \$150 for qualified natural gas, propane, or oil furnace or hot water boiler

The tax credit begins on January 1, 2006 and expires on December 31, 2007.

## ***Tax Credit for Energy Efficient New Homes***

This provision of the law offers homebuilders a tax credit of \$2,000 for homes that cut energy use for heating and cooling only (no hot water) by 50% compared to the national code (the 2004 IECC Supplement -assuming a SEER-13 air conditioner). Producers of manufactured homes can also choose to qualify for a tax credit of \$1,000 for homes that meet ENERGY STAR Homes qualifications.

using software that has been approved by the Department of Energy (DOE) and builders must demonstrate compliance by the use of third-party inspectors certified according to DOE rules.

The tax credit goes into effect on January 1, 2006 and expires on December 31, 2007, although extenders increasing the eligibility through 2009 are a possibility.

Eligible homes must demonstrate savings

## ***Tax Deductions for Commercial Buildings***

This provision offers businesses a deduction of \$1.80 per square foot for commercial buildings that achieve a 50% reduction in annual energy cost to the user, compared to the ASHRAE/IESNA 90.1-2001 standard. Energy costs refer only to heating, cooling, lighting and water heating, since only these uses are within the scope of the ASHRAE standard and within the control of the building designer.

Improvements to lighting, the envelope and HVAC systems are eligible for one third of the incentive if it meets its share of the whole-building savings goal. Clear interim compliance procedures are provided for lighting.

Eligible buildings include commercial buildings such as: offices, retail buildings, warehouses, rental housing of four stories or more, and public buildings. For public buildings, the credit goes to the "person primarily responsible for designing the

building."

New construction in an existing building is also eligible for the tax deduction, with one third of the deduction amount for new construction that affects either the lighting, envelope, or HVAC systems.

Compliance is determined by third party inspectors who review the plans and the actual in-place construction. The legislation cites RESNET's energy rating standard as the basis of the standard. Energy savings are determined by software that must be certified by the Department of Energy as meeting criteria of consistency and accuracy, following the experience of California's performance-based energy code enforcement.

The deduction goes into effect on January 1, 2006 and will expire on December 31, 2007, although an extension is possible.

## ***Tax Credit for Residential Solar Energy***

This provision of the law offers cost based tax credits to homeowners to install residential solar energy systems.

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

To be eligible for the solar hot water system tax credit, the system must produce 50% or

more of the hot water needed by the residence. There is no qualification provided for PV systems. Individuals may claim tax credits for either or both types of solar systems.

The credit will go into effect on January 1, 2006 and will expire on December 31, 2007.

In addition, the provisions of the bill substantially increase the "production" tax credit available to the manufacturers of solar equipment from 10% to 30% during 2006-2007.

RESNET acknowledges the contribution of Philip Fairey of the Florida Energy Center for the above information. For more information on the tax incentives go to RESNET's web site at: [www.natresnet.org/hotnews/tax\\_credits\\_050801.htm](http://www.natresnet.org/hotnews/tax_credits_050801.htm)