



TECHNICAL DATA

ENERGY TAX PROVISIONS

While energy savings of 10 – 15% can be achieved by improving appliances, lighting, and HVAC equipment, there is no doubt that more significant savings must start with improvements to the building envelope. Increasing the insulation values and tightening up the thermal envelope is the most effective and durable approach. This has been proven time and again with advanced building systems, such as Insulating Concrete Forms (ICFs).

Yet builders are faced with the challenge of meeting homeowner demands for granite countertops and luxury finishes. The obstacles to adopting new, more energy efficient building methods are very real and require additional effort on the part of the homeowner, architect and builder. Improved energy codes and market demand help to move this market along, but a greater incentive is needed to create major market transformation. Fortunately, the federal government has provided leadership and offered financial support in the way of tax credits and deductions.

FEDERAL ENERGY POLICY ACT

In 2005, the Federal Energy Policy Act (H.R.6) was signed into law. This bill has since been extended, most recently on Oct 3, 2008. The energy efficient new home tax credit is extended through 2009 and the energy-efficient buildings deduction through 2013. The procedures and benchmarks outlined in the original 2005 law remain the same. For current information, log on to: www.energytaxincentives.org

RESIDENTIAL CONSTRUCTION

Residential contractors may earn a federal tax credit of \$2,000 for homes that reduce energy use for heating and cooling only (hot water excluded) by 50 percent compared to the stated national model energy code, the 2004 Supplement to the 2003 International Energy Conservation Code. A further stipulation is a minimum performance level for SEER-13 for air conditioners and heat pumps. Furthermore, improvements to the building

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envelope must account for at least 1/5 of such 50 percent, which is clearly achievable with ICF construction. To qualify, contractors will need to submit IRS Form 8908 with their business tax returns. The directions for this form stipulate that the property in question must be acquired by an individual from that contractor during the tax year for use as a residence. This clause precludes the use of this tax credit by owner/builders. Residential contractors can earn a \$2,000 tax credit for homes built to save 50% energy over code.

A third-party inspector certified according to DOE rules must test the completed home and document compliance. It is most beneficial to engage a residential energy modeler in the design stage of the building project, to help identify the most cost-effective of the possible energy measures. Raters may then return during the project for an on-site inspection, and at the completion of the project to measure the air tightness of the home using a blower door test. The same rater and testing procedure is used for the Energy Star labeling, for Energy Efficient Mortgages, and for "rightsizing" HVAC units.

COMMERCIAL CONSTRUCTION

Energy Rater performs blower door test to measure air tightness.

Business taxpayers (ie the building owner) can earn a deduction of \$1.80 per square foot for commercial buildings that achieve a 50 percent reduction in annual energy costs, compared to a base building defined by the industry standard ASHRAE/IESNA 90.1-2001. Energy costs refer only to heating, cooling, lighting and water heating, since only these uses are within the control of the building designer.

It is important to remember that energy use in commercial construction can be very much affected by factors other than the impact of the external environment on the building. For example, there might be an increased cooling load to due to heat generated by machinery or people. Also, as compared with the residential energy code, a 50 percent savings over ASHRAE/IESNA 90.1-2001 may require more significant measures, as this is already a respectable benchmark. Commercial property owners can earn a \$1.80 / ft² tax deduction for a 50% energy cost reduction..

Partial deductions of \$.60 per square foot can be taken for improvements to one of three building systems—the building envelope, lighting, or heating / cooling system—that reduces total energy consumption in consideration by 16.66% (16.66% is the 50% goal for the three systems spread equally over the three systems). Also note that tax incentives for photovoltaic and solar water systems are ONLY for residential use, not for commercial construction.

AN IMPORTANT DISTINCTION

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. For example, a tax credit of \$1,000 for someone in the 35% tax bracket is equal to a tax deduction of \$1,538.

OTHER FINANCIAL INCENTIVES

Builders and property owners might find additional financial support through their local government or utility companies. These might take the form of tax credits or rebates as a % of the total investment in energy saving appliances or renewable energy sources. In some areas, builders can also receive a rebate for building Energy Star homes. State specific information can be found on www.dsireusa.org.

ICFs Fit the Bill, The unique combination of continuous insulation, airtight construction and thermal mass of insulating concrete form construction contributes significantly to energy savings. By using ICFs, a contractor is well on the way towards qualifying for the Federal Energy Efficient Home Credit. The time is right for ICF contractors to aim for this new energy benchmark.

This information provided by the Insulating Concrete Form Association (ICFA). The Insulating Concrete Form Association (ICFA) is the business association of the insulating concrete form industry, representing over 460 international firms through ICF promotion, codes and standards, research, partnering and education.