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Energy Policy Act of 2005 CONGRESS REWARDS GREEN CONSTRUCTION

BY JARED O. BLUM | Few elements of the building envelope are as critical to sustainable performance as energy efficiency. In 2006, Americans are concerned about rising energy costs. The winter brought unusually high bills, and the summer does not bode well as analysts predict record-breaking electricity costs. For building owners, architects and the American consumer there is some relief in the form of comprehensive energy legislation that offers tax incentives and deductions for the creation of more energy-efficient homes and buildings. • The Energy Policy Act of 2005 (HR 6), signed into law by President Bush in August 2005, includes precedent-setting tax incentives for energy-efficient commercial buildings, public buildings and homes to help combat the nation's growing energy problems.

COMMERCIAL BUILDINGS

The act provides tax deductions for owners of commercial buildings who make improvements that reduce energy and power costs by 50 percent over American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1, "Energy Standard for Buildings Except Low-Rise Residential Buildings." Since it was developed in response to the energy crisis of the 1970s, ASHRAE 90.1 has been the basis for building codes and standard for building design and construction throughout the United States. The U.S. Department of Energy established ASHRAE 90.1-2001 as the commercial building reference standard for state building energy codes under the federal Energy Conservation and Production Act.

Insulation, HVAC systems and lighting technologies can meet the Energy Policy Act of 2005 criterion. The tax deduction is equal to the cost of energy-efficient improvements installed in a building up to a maximum of $1.80 per square foot. To qualify, the improvements must be installed as part of one or more of the following three building systems:

1. Interior lighting
2. Heating, cooling, ventilation and hot water
3. The building envelope, including insulation

In the case where energy-efficiency improvements do not meet the overall 50 percent threshold, a partial tax deduction (of up to 60 cents per square foot) will be allowed with respect to each of the three building systems. To qualify, the improvements must equal or exceed system-specific savings targets that are to be established by the secretary of the treasury. (As of the writing of this article, targets had not been announced by the secretary of the treasury.)

Another issue involving partial tax deduction relates to improvements to HVAC and the building envelope. In this case, it will be possible for building owners to obtain a $1.20 deduction per square foot for upgrading these building systems. To qualify, the improvements also must equal or exceed system-specific savings targets to be established by the

secretary of the treasury. Roof systems on low-rise buildings with enhanced insulation levels may be instrumental in achieving a partial tax deduction.

The Energy Policy Act of 2005 specifies guidelines for calculating energy savings and obtaining certification of energy savings. Software used to calculate energy savings is available in the *2005 California Nonresidential Alternative Calculation Method Approval Manual*. (Visit www.energy.ca.gov/title24/2005standards/nonresidential_acm/.) This manual outlines the requirements for individuals or companies that want to design a calculation computer program to use with the energy standards. The new act also notes procedures will be defined for inspection and testing by qualified individuals to ensure compliance of buildings with energy-savings plans and targets. The secretary of the treasury has yet to prescribe these procedures.

THE ENERGY POLICY ACT OF 2005 SPECIFIES GUIDELINES FOR **CALCULATING ENERGY SAVINGS** AND OBTAINING CERTIFICATION OF ENERGY SAVINGS.

PUBLIC BUILDINGS

Public buildings, such as schools and other government-owned buildings, may be eligible for a tax deduction. In this case, the deduction may be allocated or transferred to the person primarily responsible for designing the property instead of the owner. In addition to this federal legislation, many states, including California, Maine, North Carolina, Oregon and Washington, are enacting laws requiring LEED certification for state-owned buildings.

RESIDENCES

In addition to commercial and public buildings, the Energy Policy Act of 2005 provides incentives to homebuilders and manufacturers of manufactured homes. An eligible contractor who constructs a qualified energy-efficient home may qualify for a credit up to $2,000. The credit is available for all new homes, including manufactured homes constructed in accordance with the Federal Manufactured Homes Construction and Safety Standards.

With regard to site-built homes, the credit of $2,000 is available for homes certified to have a level of annual heating and cooling energy consumption that is at least 50 percent below a comparable home constructed in accordance with the standards of the 2004 supplement to the 2003 International Energy Conservation Code.

Manufactured homes are eligible for the $2,000 credit in the case of a 50 percent efficiency improvement and $1,000 credit for a 30 percent improvement or compliance with the ENERGY STAR criteria for manufactured homes. For manufactured homes that meet the 30 percent standard, one-third of the 30 percent savings must come from the building envelope. For site-built homes and manufactured homes that meet the 50 percent standard, one-fifth of the 50 percent savings must come from the building envelope.

According to the Internal Revenue Service, the tax deductions are effective for property placed in service from Jan. 1, 2006, through Dec. 31, 2007. The credit is available for all new homes, including manufactured homes constructed in accordance with the Federal Manufactured Homes Construction and Safety Standards. Under the new provision, a home qualifies for the credit if:

- It is located in the United States.
- Its construction is substantially completed after Aug. 8, 2005.
- It meets the statutory energy-saving requirements.
- It is acquired from the eligible contractor after Dec. 31, 2005, and before Jan. 1, 2008, for use as a residence.

AFTER 2007

Although the Energy Policy Act of 2005 only will be effective until Dec. 31, 2007, the Polyiso Insulation Manufacturers Association (PIMA) and many other industry and energy-efficiency advocates are working to extend the new law beyond that date. Because of the lead time it takes to design, contract and build commercial buildings, the two-year length of the bill is inadequate to accommodate the design cycle of 12 to 24 months. *eco-structure* readers are encouraged to contact their members of Congress and urge that the law be extended beyond 2007. A sample letter of support can be found on PIMA's Web site, www.pima.org.

In the meantime, more information about the act can be found at the Tax Incentives Assistance Project Web site, www.energytaxincentives.org, and the Commercial Building Tax Deduction Coalition Web site, www.efficientbuildings.org. As more information from the secretary of the treasury becomes available it will be included on PIMA's Web site, as well.

Jared O. Blum is the president of the Polyiso Insulation Manufacturers Association, the Washington, D.C.-based national trade association representing manufacturers of polyiso foam insulation. The association is committed to educating Americans about the critical importance of national energy conservation. He can be reached at (703) 684-1136.

AN **ELIGIBLE CONTRACTOR** WHO CONSTRUCTS A QUALIFIED ENERGY-EFFICIENT HOME MAY QUALIFY FOR **A CREDIT UP TO $2,000**.