

**Testimony on the Department of Energy's FY 2010 Budget
Request for Energy Efficiency Programs**

Jared O. Blum
President
Polyisocyanurate Insulation Manufacturers Association

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The Polyisocyanurate Insulation Manufacturers Association (PIMA) is pleased to submit testimony on the Department of Energy's (DOE) Fiscal Year 2010 appropriations request for energy efficiency programs. PIMA believes that the following programs within the Office of Energy Efficiency and Renewable Energy (EERE), which directly affect energy use in residential and commercial buildings, are effective and achieve significant energy savings.

- **Building Technologies Program:** PIMA's recommendation is for \$175 million (F.Y. 2009 funding is \$140 million).
 - **Building Energy Codes** (Training and Assistance): PIMA's recommendation is for \$25 million (F.Y. 2008 funding was \$3.7 million, but F.Y. 2009 funding for this program is not specified). *As part of the Energy Policy Act of 2005, Congress reviewed the Building Energy Codes program and strengthened it at a higher authorized funding level of \$25 million.*

PIMA is the trade association for manufacturers of rigid polyiso foam insulation, a product that is used in over 60 percent of new commercial roof construction, in 30 percent of new residential construction, and in most re-insulation of existing commercial building roofs. PIMA members have a nationwide presence with 26 polyiso manufacturing facilities in 16 states and Canada. PIMA and its members are strong supporters of federal programs and policies that promote cost-effective improvements in the energy efficiency of buildings, both residential and commercial.

In terms of energy use and CO2 emissions, buildings are the largest and fastest growing sector. The energy used to operate our homes and buildings and the appliances they hold, accounts for 40% of the energy consumed in the United States. By comparison, industry uses 32% and transportation uses 28%. Buildings account for 39% of U.S. carbon dioxide (CO2) emissions and 9% of global emissions, an amount that is equal to the emissions of Japan, France, and the United Kingdom, combined. Also, buildings account for 72% of U.S. electricity use.

In the context of energy and climate change policy, the building sector offers several attractive options for achieving significant reductions in greenhouse gas emissions that would actually result in net benefits or savings for the economy. Improvements in lighting, building envelopes (*e.g.*, insulation and windows), residential water heaters, and appliances are some of the cost-effective energy efficiency policies that have been identified in numerous policy reports, including the December 2007 McKinsey & Company report, “Reducing U.S. Greenhouse Gas Emission: How Much at What Cost.” Because these programs actually have a positive economic impact, their implementation will help lower the cost of any climate change legislation that may be enacted in the future.

The **Building Technologies program** is DOE’s key program for creating a positive change in the efficiency of commercial and residential buildings. The long-term goal of developing zero energy homes and buildings, the Department’s support for building envelope R&D, and the development of Advanced Energy Design Guides in cooperation with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), are among the important efforts undertaken by this program that are laying the groundwork for a more efficient building stock.

More specifically, PIMA strongly supports increased funding for the **Building Energy Codes program**. Increased funding for this program would allow the Department to assist in the development of stronger model energy codes and to assist states in adopting and enforcing those codes. Building energy codes are the most effective tool for reducing energy use in buildings. 40% of the commercial and residential buildings that will be in existence in 2030 have not been built yet, and the amount of energy these buildings consume will be determined by the codes that are in place at the time they are constructed.

In an effort to reduce the global warming impact of commercial buildings, ASHRAE, the organization that develops the model energy code for commercial buildings, has pledged to improve the ASHRAE Standard 90.1 by 30% over the 2004 version by 2010. The recently approved 2007 version of ASHRAE Standard 90.1-2007 already moves us about 7% to 10% towards that goal. In addition, there is a significant stakeholder effort underway to improve the International Energy Conservation Code (IECC) by 30% with the next edition.

However, improvements to the model energy codes is just the first step in a process that includes state adoption and enforcement of the codes. Although several states have adopted and regularly update their building energy codes, a significant number do not. Building energy efficiency will not improve until states adopt these model codes. Help from the federal government in the form of technical assistance has a direct and immediate affect on the willingness and speed at which states adopt the newer codes.

In addition, an increase in funding for this program would allow DOE to implement section 128 of EPAct 2005 regarding new financial incentives for building energy code compliance. Also, increased funding would help spur faster development of the commercial building energy code in support of Department's zero-energy building goal.

In FY 2008, the Building Technologies Program received an appropriations of \$108.9 million. Of this amount, only \$3.7 million was allocated for the Building Energy Codes (Training and Assistance) program. As part of the Energy Policy Act of 2005, Congress reviewed the Building Energy Codes program and strengthened it at a higher authorized funding level of \$25 million.

Below are three programmatic examples where DOE funding has a direct impact on the pace of state code adoption and where improvements could be made.

- DOE has not kept up with its requirement under the Energy Policy Act of 1992 to review and make determinations on updated versions of the IECC and ASHRAE codes. The determination for ASHRAE Standard 90.1-2004 was not completed until December 2008, about a year after the next version (90.1-2007) had already been released. The last time DOE performed its review of the IECC was for the 2000 version. The 2003, 2006 and the 2009 versions have been released since that time. These reviews, if done in a timely manner, would help to accelerate the pace of state code adoption efforts.
- DOE should increase the number of building energy code technical analyses/reports that are prepared for states considering a code adoption or update. These reports, prepared by DOE, quantify state-specific energy savings that would result from the adoption of new, more up-to-date versions of the model building energy codes. Without this technical assistance, some states have a very difficult time justifying the resources required for the code adoption and implementation process. It is our understanding that DOE is currently not able to keep up with state requests for these analyses.

- The *COMcheck* and *REScheck* software developed by DOE and used by states to demonstrate compliance with building energy codes are extremely valuable tools that create an incentive for states to adopt and enforce the most up-to-date energy codes. It is important that DOE continues to quickly update this software to cover the most recent versions of the model energy codes. In fact, many states will not move forward with adoption of a new code until the new version is covered by *COMcheck* and *REScheck*.