



## **Better Building Energy Codes Now: the Reasonable and Crucial Next Step**

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With today's conspicuous promotion of green building and sustainability, it is easy to forget that the bulk of commercial building design does exactly what it has always done: meet the local building energy code. While the resulting buildings are more energy efficient than if there were no code at all, they're far from the best we can do.

The potential collapse of any Congressional action to reduce energy consumption as part of climate change or energy legislation means the immediate opportunity for improving building efficiency standards falls into different hands: state and local building code officials. These are the people who work every day to establish and enforce the rules on how we design and build buildings and their influence is far greater than most people know.

At the end of October, these local government representatives will gather in Charlotte, N.C., to vote on changes to the International Energy Conservation Code (IECC), a national model for energy codes that is available for adoption by local jurisdictions across the country. New Buildings Institute (NBI), The American Institute of Architects (AIA) and the U.S. Department of Energy have partnered on a comprehensive proposal for the commercial chapter of the IECC (EC 147) that will be considered at the Charlotte conference.

The measures outlined in these code changes are not pie-in-the-sky, untested or new-to-market ideas. The upgrades to equipment specifications and design strategies that relate to building envelope, heating and cooling, lighting, quality assurance and renewable energy are in the marketplace, readily available, affordable and practical. In fact, similar code requirements have already been adopted by the states of Massachusetts and New Mexico and are being considered by Oregon and Vermont.

Indeed, we know that constructing buildings to meet the proposed code is achievable because for years NBI has been working with utility efficiency programs that promote the construction of buildings designed on these same principles. The IECC commercial proposal is based largely on NBI's Advanced Buildings® Core Performance® program, offered by utility and statewide energy efficiency organizations across New England, eastern Canada and in Oregon.

If code officials vote to accept EC 147, buildings that meet the code would be at least 20 percent more energy efficient than those complying with the current version. Additional

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proposals, if adopted, could increase efficiencies up 30 percent—the largest single-step increase in IECC history. And while some might argue that in today’s economy improving codes simply passes extra costs on to the commercial building industry, energy efficiency is a prime example of what our economy needs to resume growing. Higher performing buildings can be built for little or no premium, and changing codes to use readily-available technology and building techniques keeps additional costs nominal and quickly recoverable through year-after-year energy savings.

A 2009 study by McKinsey & Company proved just how much money our economy could save by investing in energy efficiency: their findings show that a holistic, national energy efficiency strategy could save the country more than \$1.2 trillion dollars for a \$520 million investment—a very good return on investment indeed.<sup>1</sup>

Why are we focusing on commercial building energy codes? Frankly, because improvements to these buildings will provide so much bang for our energy buck. Buildings consume about two-thirds of the U.S. power supply and account for 40 percent of our greenhouse gas emissions. Our carbon reduction and energy independence goals cannot be met without significant gains in energy efficiency, and codes for commercial buildings are the most powerful tool around to drive these kind of increases.

What happens if these code changes fail in October? We would lose three years—until 2015—before the next cycle of revisions to the IECC. That’s three years of building construction and opportunities for improved energy efficiency gone—forever.

There are many efforts underway in the commercial building industry to help the U.S. achieve extremely low energy use. AIA has committed to reaching carbon neutrality for all buildings by 2030. The U.S. Department of Energy is focused on increasing the energy efficiency of buildings on behalf of the public and our national interests through the Building Energy Codes Program and other programs like Building America. NBI works to promote advanced design practices, improved technologies and programs that result in high-performance buildings.

As they head to Charlotte, let’s encourage the building code officials to do their part as well by voting “yes” on EC 147 and other efficiency proposals. We’re hopeful they will seize this historic opportunity to move the country toward more efficient buildings and help us build an economy that is less reliant on fossil fuels—now and into the future.

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1. “Unlocking energy efficiency in the U.S. economy,” McKinsey Global Energy & Materials, July 2009, [http://www.mckinsey.com/client-service/electric-power-natural-gas/US\\_energy\\_efficiency/](http://www.mckinsey.com/client-service/electric-power-natural-gas/US_energy_efficiency/)