

The Green Codes

Increasingly, codes are playing a significant role in the push for greater energy efficiencies.

While standards and criteria have been around for years in efforts to attain better energy efficient systems, more and more governments — whether local, state or federal — are passing building codes that establish minimum requirements for energy use. The Energy Policy and Conservation Act of 1992 and California's Title 24 are perhaps the two highest profile examples. But the fact remains that practically every building in the planning or construction phase, or even in rehab, must meet minimum efficiency codes in order to get the green light.

Following is a little background information that helps explain the growing role of codes in attaining energy efficiency. The first real legislation was the EPAct of 1992, which gave the Department of Energy the authority to determine an energy efficiency standard for commercial and residential buildings. However, in 2002, the EPAct gained even more clout and began using ASHRAE/IESNA Standard 90.1-1999 and 2001, "Energy Standards for Buildings Except Low-Rise Residential Buildings." Section 304 of the EPAct establishes a role for the DOE to provide incentive funding and technical assistance to states to update and implement their building energy codes to meet or exceed the model codes determined to improve energy efficiency.

Back in December of 1995, the Council of American Building Officials (CABO) assigned all rights and responsibilities for the Model Energy Code (MEC) to the International Code Council (ICC). The first addition of the ICC's International Energy Conservation Code (IECC) issued in 1998 is the successor to the 1995 MEC.

In 2001, DOE made a determination that the 1998 and 2000 editions of the IECC will improve energy efficiency in residential buildings over the 1995 MEC. Within two years of a published positive determination, which was by Jan. 10, 2003, each state is required to certify to DOE that it has reviewed the provisions of its residential building code regarding energy efficiency. If a state determines that it's not appropriate to revise its residential code to meet or exceed the IECC, the state is then required to explain why to the Secretary of Energy. While many states are proactive and stringent, it is expected that with the new Obama administration, the DOE will have even more power to enforce greater energy efficiency codes.

In regard to commercial buildings, it's very similar. In July of 2002, DOE published its determination in the Federal Register that Standard 90.1-1999 would improve commercial building energy efficiency by comparing it to Standard 90.1-1989. As required by the EPAct, all states have two years to adopt Standard 90.1-1999 or upgrade their existing commercial building codes to meet or exceed its requirements. The standard applies to all new commercial buildings and all major remodeling or renovation of existing commercial buildings.

With the 2001 edition of Standard 90.1, each state must review and update their energy efficiency provisions for commercial building codes to meet or exceed the latest update. Again, expectations are that the federal government will only continue to strengthen energy efficiency requirements, which means states will have to keep up the latest editions of EPAct.

"When energy efficiency standards get adopted into building codes is when they become enforceable," notes Eddie Hickerson, lighting control specialist, Schneider Electric. "Energy standards basically get their start from two groups: ASHRAE and IESNA. The International Code Council is a major player too."