NORTH CAROLINA

Improving Compliance with Building Energy Codes

Overview
North Carolina focused on addressing compliance with statewide building codes for energy efficiency. While awareness and enforcement of safety codes is common across North Carolina, lack of energy code awareness remains a key barrier to compliance.

The state focused its enforcement and compliance efforts on training local code officials. Many local code officials were either unaware of code requirements, lacked the necessary tools needed to ensure proper code compliance, or simply did not prioritize energy codes. Providing adequate and convenient training to code officials was seen as a first and absolutely necessary step in overcoming the lack of code enforcement.

The Clean Energy States Grant allowed North Carolina to hold 22 classroom training sessions throughout the state for code officials, as well as three geographically distributed field trainings. Participation in the grant program also allowed the state to position itself to receive subsequent federal funding for more stringent code adoption and enforcement activities, including $3 million for code enforcement in affordable housing under the American Recovery and Reinvestment Act (ARRA).

Clean Energy States Grant Goals
Prior to this program, energy code training for local officials was primarily conducted once a year at one of three regional meetings put on by the state building code association. The state found that fewer than 400 code officials attended these trainings. Therefore, the state initially set a modest goal: to hold 20 classroom trainings and reach at least as many of the state’s 4,000 code officials as past trainings had (400 officials or 10 percent of the total). North Carolina surpassed its goal by reaching out to over 1,000 officials (25 percent) who attended the various trainings.

The training of code officials is one element of North Carolina’s effort to reduce energy use through improved building energy code compliance. The state also used the grant program to support state efforts to evaluate current compliance with the existing state energy code and support the adoption of a newer, more energy-efficient code. Through improved design and compliance, the state hoped to increase the energy efficiency of its code by 30 percent, potentially saving residents $40 million in energy costs.

Accomplishments and Challenges
With nearly one quarter of the state’s building code officials attending, the success of the code training sessions was a clear accomplishment for North Carolina. The state also was able to continuously update training materials and gather information that will be used in ongoing code and program development through surveys distributed at the end of each training session. The field training also allowed code officials to immediately apply their in-class learning to on-the-job situations. Overall, the focus on energy code education for North Carolina’s building code officials will lead to improved enforcement and generate significant energy savings for the state.

The energy code training sessions have allowed North Carolina to better understand the barriers that exist in enforcing the energy conservation code. These training sessions spread energy code training statewide, improved awareness of and access to the code for code officials in rural areas, and helped translate code rules into plain language, as code language is often difficult to understand, even for code officials.

Next Steps
North Carolina will build on its grant program by improving compliance with the energy code through a range of short- and long-term steps:

- Develop and adopt a North Carolina Energy Conservation Code that is 30 percent more efficient than the 2006 IECC;
- Provide additional training sessions on the new code for builders, building inspectors, and other stakeholders;
- Develop and implement an energy code official training and certification program;
- Review and revise other state codes to remove loopholes that undermine the intent of the energy conservation code; and
- Make the North Carolina Energy Conservation Code Commentary and training materials available free to inspectors and to the public.

North Carolina expects that closing the gap between the development and enforcement of its energy code will be an effective tool in reducing building energy use, resulting in the attainment of a broad set of energy goals.