

## Oregon is an energy efficient home construction leader, study finds

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A federal push for more stringent residential building codes in Oregon is paying off, despite concerns that it would drive up construction costs, according to a recent study.

Newly constructed homes in the state are likely to be more efficient than building code requires, said Allen Lee, executive director of the Energy Services Division for the Portland office of Cadmus, a consulting firm. The Northwest Energy Efficiency Alliance, a Portland-based nonprofit, hired Cadmus to study residential energy code compliance in the western U.S. The firm has completed studies comparing code compliance and energy efficiency in Oregon, Washington Idaho and Montana. The Oregon New Residential Construction Code Compliance Study is slated to be released next month.

"We found in Washington most of the buildings are performing better than code. I think in Oregon we'll find something similar," Lee said. "I think as a region we've done a pretty good job."

The NEEA, which is supported by the Bonneville Power Administration, Energy Trust of Oregon and more than 100 Northwest utility companies, is planning a similar study of commercial buildings; it's scheduled to be finished by the end of next year, NEEA spokeswoman, Veronica Marzilli, said.

The studies aim to assess how building code updates have improved the efficiency of new construction and find the best ways to target education for builders on complying with the latest energy codes, said David Cohan, NEEA senior manager for codes and standards. The NEEA also hopes to assist states in meeting requirements to adopt the stricter energy codes by 2017 through the federal American Recovery and Reinvestment Act, he said.

Oregon has already adopted these codes, and study findings in the state should set aside worries that adopting stricter codes will drive up the cost of construction to the point of being restrictive to development, he said. More than 90 percent of the Oregon homes surveyed complied with the updated codes, Cohan said.

"To me, what it shows is the stringency is not a problem," he said. "There is no technical argument against putting more restrictive codes in place."

For the NEEA study, Cadmus used U.S. Census data to randomly select 66 homes throughout Oregon that were under construction or recently completed. Researchers went through each home with a checklist for various energy efficiency factors, such as the amount of insulation, and gave it a score, Lee said. They compared how the home was constructed to the building code requirements and ran a computer model to rate energy efficiency both as it was built and if it met code perfectly, he said.

Northwest homes were especially efficient compared to those in other states that Cadmus studied, Lee said.

"In Oregon and Washington, it's really good – and it's not surprising because there's been a lot of effort in educating people," he said. "The building practices are getting a lot better."

The NEEA has focused many of its efforts on keeping building industry professionals informed about the latest energy code changes, Marzilli said.

"We actually try to work with people in the industry so they're better prepared," she said.

Educating potential homebuyers is equally important because it builds the market for energy efficient houses, Marzilli said.

"We do a lot of work with new construction," she said. "Energy efficient homes have great value. It has to work from the supply side and the demand side for builders."

The NEEA will next assess energy code compliance for commercial construction, but it will be a lot more complicated, Cohan said. Because commercial building types are much more diverse than residential structures, the organization will focus on specific energy consumption, such as lighting in office buildings or refrigeration systems in grocery stores, he said.

"We're going to try and figure out very specific questions we're trying to answer," Cohan said. "There are certain areas we know have more energy impact than others."

When it's published, the NEEA's Oregon New Residential Construction Code Compliance Study will be posted on the organization's website at [neea.org/reports](http://neea.org/reports).



Sam Tenney/DJC

Juan Parra, left, and Guadalupe Flores-Camaron, both employees of Northwest Commercial, install siding on a new home being built by Legend Homes at the Villebois development in Wilsonville. A study commissioned by the Northwest Energy Efficiency Alliance comparing code compliance and energy efficiency in residential construction is slated to be released next month.