

**Oregon State Bar
Sustainable Future Section**

Photo: J. Michael Mattingly

The Long View



Oregon's New Reach Code: Mainstreaming and Streamlining Energy Efficiency

By Aeron Teverbaugh

As far back as 1979, energy efficiency has been a key component of Oregon's Building Code. The American Council for an Energy Efficient Economy currently ranks Oregon's energy provisions as among the strongest nationwide. (American Council for an Energy Efficient Economy: *The 2011 State Energy Efficiency Scorecard*, Research Report E115 (2011). Before "energy efficiency" entered the popular dialogue, increasing efficiency meant improving HVAC systems and using thicker insulation. But with this low-hanging efficiency fruit largely picked, and in this new age of energy efficiency, consumers and builders are requiring more. Having high performance requirements is one thing, but streamlining—and mainstreaming—new energy innovation and standards requires a new approach. For Oregon, that is the Reach Code.

Unique Position

In the 1960s and 1970s considerable national attention was focused on controlling housing and energy costs. The report *Building the American City* that was prepared in 1968 by the U.S. National Commission on Urban Problems summarized how states could address housing costs. The major focus of the report was on ensuring that there was an up-to-date, uniformly applied and enforced building code. When Oregon's legislature took up the issue it heard both the pros and cons of a statewide code. Because Oregon is a strong "home rule" state, there was a lot of discussion around loss of local control. Opponents argued that the loss of local control over building

codes would hamper innovation and defeat energy efficiency efforts. Proponents argued that it would make it easier to create new efficiency requirements and use new products because they would only have to be accepted once rather than proven worthwhile in each city or county. Ultimately, the predictability, stability, and accompanying lower costs swayed the state toward a statewide uniform code structure. The drive for statewide energy conservation was one of the compelling factors for moving toward a statewide preemptive code.

In 2009, Governor Kulongoski and Oregon's Building Codes Division (BCD) proposed increasing Oregon's energy efficiency strategies while providing flexibility to builders. The resulting Senate Bill 79 had four major components: a taskforce investigating energy efficiency scores; an immediate 15-25% increase in the efficiency of commercial buildings and 10-15% for residences; and the adoption of a new type of building code. The charging legislation stated that this new code will "be known as the Reach Code," indicating the aspirations for the code. "Reach" codes are gaining popularity as a way to introduce, and subsequently mainstream, state-of-the-art design and code provisions and streamlined permitting processes. Reach codes may also assist builders attempting to connect to a new customer base and align with incentive programs.

This background put Oregon in a unique position to streamline the regulation of high-performance construction practices statewide. The BCD is responsible for promulgating a statewide building code covering plumbing, electrical, energy efficiency, structural

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and mechanical systems, boilers, and elevators. The BCD adopts a national model code, and must minimize amendments necessary to meet the state's unique conditions. Minimizing amendments helps create uniform standards that cross state lines. Oregon's statewide code is both the minimum allowable and the maximum required standard. While builders may *choose* to exceed the statewide standard, they cannot be required to go beyond the code set at the state level. The predictability results in a construction community that shares a common frame of reference. But innovation requires more. It requires flexibility.

To enable innovation and take into account unique site-specific conditions, local jurisdictions may grant what amounts to a variance to code requirements for specific projects, provided the proposed requirement is equivalent to code. This site-specific alternate is at the discretion of the local building official. The builder carries the burden of proving that proposed techniques are equivalent (or better). Although this avenue is available, it can sometimes lead to lengthy and frustrating permitting processes for builders trying to exceed the minimum requirements of the code. The BCD has authority to address questions that arise on methods, materials or designs under the code, at a statewide level. For example, in 2008 the BCD issued Statewide Alternate Methods (SAMs) to address questions about rainwater harvesting and grey water use. A SAM has the force of the code, but is at the option of the builder and must be accepted in all jurisdictions. The Reach Code is a more comprehensive attempt to address high-performance methods, streamlining the process beyond these one-shot SAMs and narrow site-specific approvals.

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Mainstreaming in the Process of Streamlining

The Reach Code is Oregon's first *optional* code. It is specifically designed to streamline the construction of high-performance buildings. It will also assist builders in the process of renovating homes and offices into high efficiency structures. Even as certified structures gain market cache, some builders still shy away from high-performance projects due to a perception of increased regulatory burdens and time delays. By streamlining the approval process the BCD hopes to encourage innovation—both in energy efficiency and cost reduction.

During development of the Reach Code BCD turned to the most advanced model code available (though still in draft form) the International Green Construction Code (IgCC). The BCD also consulted architects, engineers, and code officials in order to merge provisions from the upcoming 2012 International Energy Conservation Code (IECC), IAPMO Green Plumbing and Mechanical Code, and other high-performance standards into the Oregon Reach Code. In combining these standards, the BCD sought to create a streamlined permitting process for high performance buildings in general.

The Reach Code became effective for commercial buildings in July 2011 and for residential buildings in October 2011. It will take some time to judge how effectively the Reach Code has streamlined projects, and how well streamlining will encourage mainstreaming. But in general, we have come a long way from when energy conservation was "treated like a godson with leprosy." (Oregon House Committee Meetings [Senate Housing and Urban Affairs Committee]. Senator Ted Hallock, May 15, 1979 Sess.) At BCD, we are focused on creating an environment in which increasing energy efficiency is both simpler and cheaper to achieve.