



Oregon Reach Code

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Building Codes Division

Our Mission: *“Better Buildings for Oregon”*

- Safe
- Energy Efficient
- Functional
- Cost Effective to Build
- Affordable to Own and Operate

Building Codes Division

How do we accomplish our mission?

- Partnerships
- Building Codes
- Plans & Inspections
- Licensing
- Enforcement

Oregon Energy Policy

“85% of the new demand for electricity over the next 20 years in the NW can be met by using energy more efficiently.”

NW Power and Conservation Planning Council's 6th Power Plan

Oregon Energy Code

History of Energy Code Development

- **Oregon Department of Energy**
1978 to 2007 (non-residential)
 - 'Homegrown' energy provisions
 - Chapters in Structural & Residential Codes
- **Building Codes Division**
2010 to present
 - Adopted 2009 IECC with Oregon amendments
 - 'Stand-alone' energy code (non-residential)
 - COMcheck
 - Reach Code

Legislative Direction

Senate Bill 79 (2009)

- Increase Mandatory Energy Codes
 - Commercial - 15% over current code
 - Residential - 10% over current code
- Adopt an 'Optional' Reach Code
 - Continually improve energy codes
 - Goal – 'Net Zero Energy' by 2030
- Create a Task Force to Assess Energy Performance Scores

Oregon Reach Code



Optional set of construction standards for achieving greater energy efficiency than if a building were constructed under the statewide mandatory codes

Reach Code Development

- Advisory Committee
 - Adapt national model code to Oregon
- Technical sub-committee
 - Vetted energy provisions with technical experts
- Construction Industry Energy Board
 - Approved draft code
- Adopt code by rule
 - Commercial – effective July 1, 2011
 - Residential – anticipated effective October 1, 2011



Oregon Reach Code

What will it do?

- Increase predictability
- Serve as a testing ground for new construction methods and technology
- Expedite permitting
- Align with certification and incentive programs
- Measure progress



Preview Upcoming Energy Codes

Reach Code incorporates measures from

- 2012 IECC
- ASHRAE 90.1-2010



Why use the IGCC?

International Green Construction Code (IGCC)

- Proposed by broad coalition - DOE, AIA, ASHRAE & US Green Building Council
- Begins to address buildings as 'integrated' system
- 'Reserved' sections will allow code to grow
- Broad definition of "energy" allows inclusion of green provisions in code



Reach Code

Focus is on High Performance Building

- Tight building envelope
- Air barriers and blower door testing
- Functional testing of 'code related' systems
- Sub-metering
- 'Renewable-ready'



Reach Code

Project Electives – provides flexibility to
maximize efficiency

Examples:

- Passive design
- Renewable energy systems
- Post-occupancy commissioning
- Vegetative roofs



Reaching for Better Buildings

Implementing an 'Optional' Code

- Marketing Strategy
- Training
- Incentives
- Align with 'green building' certification programs (LEED, Green Globes, Energy Star, etc)



Oregon Utilities

- *Energy Trust of Oregon (investor owned utilities)*
 - Nonprofit created by legislature, established in 2002
 - Oregon Public Utility Commission provides oversight
 - Funded by a 3% public purpose charge
 - Dedicated to energy efficiency, conservation and renewables
- *Bonneville Power Administration (consumer owned utilities)*

Challenges and Opportunities Ahead

- Energy impact *NOT* regulated by Codes
 - Plug Loads
 - Occupant Behavior
 - Ongoing Building Maintenance
- Outcome based codes and rating systems
- Green Code provisions outside of statutory authority (i.e. land use, transportation)
- Partner with utilities

Lessons Learned

- Relationships are essential
 - Communicate early and often
- Process matters
 - Transparency is key
 - Err on the side of inclusion
- Technical expertise is critical
 - Partner with ODOE, PNNL etc

Better Buildings for Oregon

Beyond Energy Efficiency...

- Renewable Energy
 - Oregon Solar Installation Specialty Code
- Water Conservation 'Statewide Alternate Methods'
 - Rainwater Harvesting
 - Gray water for flushing toilets
- Electric Vehicle Charging Infrastructure
 - Streamline permitting & inspections
- 90% Compliance Program
 - Completed pilot with local jurisdictions



For more information

<http://bcd.oregon.gov>

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