

## Key Building Energy Codes Legislative and Regulatory Issues in the Northwest

Louis Starr, P.E.  
Northwest Energy Efficiency Alliance (NEEA)



### Learning Objectives for this Session

1. Define ASHRAE's priority advocacy areas.
2. Describe how states sometimes influence each other in terms of building-related legislation.
3. Provide a list of key states that could influence other states, in terms of building-related legislation.
4. Explain how ASHRAE seeks to use the Society's technical expertise to inform public policymaking at the state level.
5. Describe the political barriers to increasing building efficiency in key states.
6. Describe possible solutions to overcoming political barriers to increasing building efficiency at the state level.

ASHRAE is a Registered Provider with The American Institute of Architects Continuing Education Systems. Credit earned on completion of this program will be reported to ASHRAE Records for AIA members. Certificates of Completion for non-AIA members are available on request.

This program is registered with the AIA/ASHRAE for continuing professional education. As such, it does not include content that may be deemed or construed to be an approval or endorsement by the AIA of any material of construction or any method or manner of handling, using, distributing, or dealing in any material or product. Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

## WHO IS NEEA?

NEEA (Northwest Energy Efficiency Alliance) is a non-profit organization that mobilizes the Northwest to maximize energy efficiency. The northwest includes Washington, Oregon, Idaho and Montana. We are voluntarily funded by northwest electric utilities with a 30 year tradition of saving energy in the northwest.

## WHY ENERGY EFFICIENCY?

Energy efficiency is the most cost effective and sustainable way to meet our future energy needs. The power plan estimates that over 40% of Northwest energy efficiency savings within the next 20 years will come from increased codes and standards. The power plan is developed by the regional power council under the federal power act of 1980 to determine future power demand of the region.

## WHY CODES?

Codes are relatively inexpensive to implement because there is no incentive program and 100% of the projects implement the efficiency measure.

## The energy codes in the northwest states.

### Current Energy Codes in NW

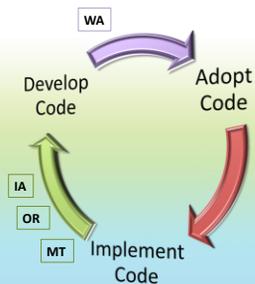
Washington: 2009 WSEC, state-developed and implemented code more stringent than the 2009 IECC.

Oregon: 2010 Oregon Structural Specialty Code (OSSC) for non-residential buildings, based on the 2009 IECC.

Idaho and Montana: 2009 IECC with reference to ASHRAE 90.1-2007.

The current energy code for each state can be found at:  
<http://www.energycodes.gov/states/>

## Northwest states are on a three-year code review/change cycle.



## ENERGY CODE IN WASHINGTON

Last 25 years Washington has had its own energy code.

Washington Senate Bill SB 5854 requires residential and nonresidential construction permitted under the 2031 state energy code must achieve a seventy percent reduction in annual net energy consumption, using the adopted 2006 Washington state energy code as a baseline.

In the most recent code cycle Washington has decided to transition to 2012 IECC.

Most people want the 2012 IECC with Washington amendments.

## CURRENT ENERGY CODE PROCESS IN WASHINGTON

Washington is developing their 2012 code.

Energy Technical Advisory Group (TAG) reviews energy code and provides recommendations to the Washington State Building Code Council (SBCC). The council may follow recommendations or make their own determinations.

SBCC solicits for TAG members on the energy TAG to represent industry groups affected by the code including mechanical design engineers. Currently there is no TAG member representing ASHRAE interest but there are representatives for BCA, Illumination society, trades and other industry groups. This is an excellent opportunity for now and in the future for ASHRAE to be involved in the Washington Code process.

SBCC issued a "Mashup" of IECC 2012 and WSEC in December of 2011. This document is based upon the 2012 IECC with Washington specific requirements incorporated.

The Energy TAG is working on adjusting this Mashup to perfect the final code by March 31st. Proposed amendments will be reviewed in a 3 month period by the TAG after the Mashup review is complete. Tentative completion of recommendations to be submitted to the SBCC is June 31st.

## WASHINGTON MASH UP

With the introduction of IECC 2012 there is now the ability to use 90.1 as compliance path.

Table C403 IECC regulates window based upon operation (fixed vs. operable) and is frame material blind, while WSEC varied requirements based upon frame material. Mash-up table adopts WSEC U 0.32 non-metal value for all vertical fenestration.

Metering - 2009 WSEC metering chapter dropped out of the mash up.

## CITY OF SEATTLE ENERGY CODE

The City of Seattle uses Washington Energy Code with Amendments.

Lower interior and exterior lighting power allowances for various occupancies.

Compliance of the continuous air barrier for the building envelope shall be demonstrated by testing the completed building and demonstrating that the upper 95% confidence interval for the air leakage rate of the building envelope does not exceed 0.40 cfm/ft<sup>2</sup> at a pressure differential of 0.3 inch w.g. (1.57 psf).

Seattle Energy Code Reference Standard 29 (RS-29) is a modified version of Appendix G from ASHRAE/IESNA Standard 90.1-2007.

Energy Metering and Energy Management Consumption (Chapter 12 of WSEC) remains in energy code.

## ENERGY CODE IN OREGON

In 2009, the Oregon Legislature with the approval of Senate Bill 79, directed the Oregon Building Codes Division (BCD) to reduce energy use in commercial construction by 15-25% over the 2007 code provisions by 2012.

With the adoption of the 2010 Oregon Energy Efficiency Specialty Code (OEESC) the division achieved the goal set out by the Legislature 2 years ahead of schedule.

2010 Oregon Structural Specialty Code (OSSC) for non-residential buildings, based on the 2009 IECC and is in effect starting October 1, 2011.

The focus in the code cycle currently is on training on the energy code that has been adopted.

Forms of Training include: Day long seminars, online training through community colleges, onsite training for Architects, Engineer, General Contractors, Subcontractors and other interested parties. Continuing education credits are provided for training.

Technical support is provided for questions on the code is provided through the Building Codes Division

Compliance with the code is very important. Two important elements of compliance include clear code language and education of those that design, build or enforce the code.

## OREGON ENERGY REACH CODE

In 2009, the Oregon Legislature with the approval of Senate Bill 79 increased efficiency in the statewide mandatory energy code and established a new code called the Reach Code.

The Reach Code is a set of statewide optional construction standards for energy efficiency that exceed the requirements of the state's mandatory codes. The Reach Code covers a variety of topics including: mechanical systems, lighting designs, overall building design (both residential and commercial), plumbing practices, and product approval.

Builders will have an optional path for high performance construction and jurisdictions can be assured the innovative construction methods are sound.

The Building Code Division is working to align the code with federal, state, and local financial incentives