Solar Permitting And Oregon Code

Bell Labs, 1955
Why do we need codes?

Electrical (NEC)

Structural (OSSC){IBC}
Oregon Solar Installation Specialty Code (OSISC)

First statewide solar energy code in nation

Goals and Scope:
• Clear, simple code
• Provide for consistent installation statewide
• Eliminate barriers to local approval
• PV only
• Does not address BIPV
• “Implemented” = October 1, 2010!!
Oregon Solar Code

Prescriptive Path Installations: Non-Engineered

For “light-framed wood construction”

• Only applicable in certain wind classes
• Only applicable with certain snow loads
• Maximum point and per square foot loads
• Maximum allowable spans
• Maximum distance from roof surface to modules
• Uniform Documents across jurisdictions
Firefighter Access

Required Setbacks for flat roofs or greater than 1,000 sq/ft of PV modules

- 3 foot unobstructed pathway to edges
- Intermediate pathways and venting
- Markings for raceways
Firefighter Access

Required Setbacks for sloped roofs with:
- Less than 1,000 sq/ft of PV modules and
- Less than 25% total roof coverage
Firefighter Access

Required Setbacks for sloped roofs with:
- less than 1,000 sq/ft of PV modules,
- greater than 25% total roof coverage
Portland Permitting Process

Residential

Prescriptive? → No

Yes

Design District? → Yes

Permit Issued OTC or e-permit

Commercial

Structural Engineering required

Yes

Design District?

No

Community Design Standards or Design Review

Yes

Permit Cleared Zoning review

No

Permit Issued after Structural review
Portland Community Installation Numbers

Portland PV, SWH, SPH  
2005-2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Commercial</th>
<th>Residential</th>
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City PV Permitting Fees

Residential

Design Review?

Yes

Design Review Minor C
~$650

No

Flat Permit Fees

Design Review Fees added to Permit Fees

Commercial

Design Review?

Yes

Permit Fees based on Project Valuation minus Cost of Modules and Inverters

No
City of Portland e-permitting for solar

- 80% of residential systems
- Contractors submit .pdf documents via email
- Receive e-mail approval, pick up and pay for permits at desk
- Contractors are educated and consistent
- Available for Prescriptive Path only
RICAP 5 Zoning Code Changes
(Solar Highlights)

- Allows roof mounted solar panels to exceed maximum building height.
- Allows solar and renewable energy generation in all zones

- Created new standards for solar panels in Historic and Conservation Districts as an alternative to discretionary design review
  – Requires some setbacks and limitations on module placement in these zones
Zoning and Land Use

Allowed Vs Conditional Primary Vs. Accessory

Competing, or complimentary?
Aesthetics and Historical Issues
Aesthetics and Historical Issues
ORS 105.880 Conveyance prohibiting use of solar energy systems void.

- 1) No person conveying or contracting to convey fee title to real property shall include in an instrument for such purpose a provision prohibiting the use of solar energy systems by any person on that property.
- (2) Any provision executed in violation of subsection (1) of this section after October 3, 1979, is void and unenforceable.
- (3) For the purposes of this section, “solar energy system” means any device, structure, mechanism or series of mechanisms which uses solar radiation as a source for heating, cooling or electrical energy. [1979 c.671 §5]
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• Right to install Solar
• Right to connect
• Right to net meter
• Right to competitive environment
• Right for clean energy on public lands
• Right to buy solar from utility
• Right to ethical treatment from industry