Ashland Net Zero Possibilities

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Advancing Net Zero in Ashland

Why?

- Supportive Community
- Climate Recovery Ordinance / Climate Plan
- Buildings = 25-50% of Ashland Carbon pollution

What opportunities?

- Existing Buildings
- New Construction
- Renewable Energy

What’s the answer? We aren’t sure yet.
Net Zero - **What’s allowed?**

- Electricity only
- Total fuel energy
- Embodied energy

- Do RECs count?
- Ready or Verified?
A promising path...

**Design an energy efficient building**
- Efficiency Standard: ASHRAE 90.1-2016 minimum; ASHRAE 189.1-2017; others
- Efficient building envelope / daylighting
- Passive heating / cooling / ventilation
- Efficient systems / equipment / controls

**Address the remaining building’s energy needs with:**
- on-site renewable energy
- and/or off-site renewable energy
  - wind • solar • hydro
  - (other non-CO₂ emitting sources)

Source: Architecture 2030
Graphic adaptations: Sefaira; DOE
What’s a path for Existing Building Efficiency?

Currently in Ashland

- Energy audits
- Efficiency incentives
- New electrification programs
- New inventory assessment tool

Maybe someday

- Expanded home energy loans
- Home energy score requirements
What’s a path for New Construction Efficiency?

Currently in Ashland

- Land use code - generous density bonus
- Progressive development requirements
- ZERO member City

Opportunities

- Amend local land use code
- 2021 IECC Code revision
- Advance State building code (ZERO)
- Parallel, early adopter code
What’s a path for expanding renewables?

Currently in Ashland

- Municipal Electric Utility
- City-funded solar incentives
- Virtual net metering

Opportunities

- Land use code changes: solar reserve, orientation, PV ready
- Utility RPS, solar farm planning
- Community Solar / Off-site solar
Zero Energy Ready Oregon (ZERO) is a coalition working to support Oregon on a path to zero energy homes and buildings in ways that benefit all Oregonians.
ZERO Priorities

• ZERO will work to ensure that Executive Order 17-20 is implemented by facilitating technical assistance and stakeholder engagement.

• ZERO will develop a zero energy roadmap to set a clear course for how the state can achieve zero energy building codes by 2030 by addressing current barriers. The Roadmap will emphasize the perspectives of low-income populations, people of color and other frontline communities often previously excluded from these state level policy conversations.

• ZERO will produce and deliver a comprehensive “Communications Toolkit” that provides key market leaders with unified messaging about the value of zero energy buildings to Oregon Communities.
Oregon Executive Order EO 17-20

Accelerating Efficiency in Oregon’s Built Environment to Reduce Greenhouse Gas Emissions and Reduce Climate Change

“It is the policy of the State of Oregon to achieve zero energy ready buildings as a standard practice in buildings across the state.”

Elements of EO 17-20 include:

- Leadership-by-example in state buildings
  - Benchmarking
  - Energy Targets
  - ZE by 2022
- Building code improvements
- Existing building retrofit strategy
- Life cycle costing “off ramp”
ZERO: Focus on Executive Order 17-20

2018 Policy Priorities

1. 2018 Commercial Code Proposals

2. Cost Analysis tool – Building Energy Efficiency Working Group (BEEWG) and Residential Manufactured Structures Board sub committee


4. Ensure processes are transparent and well-informed
Looking Ahead - National Code Advancement Opportunity

2021 IECC

• Buildings use over 40% of the energy used in the United States, including 70% of the electricity.

• Oregon energy codes is based on the national International Energy Conservation Code (IECC)

• Local governments have the power to move this national model base energy code forward.

• Must renew membership or join ICC by March 29, 2019 and vote...