

Oregon Department of **ENERGY**

Oregon Building Performance Standard

Proposed Updates

September 2026

Codes & Standards Team





OREGON DEPARTMENT OF ENERGY

Leading Oregon to a safe, equitable, clean, and sustainable energy future.

Our Mission

The Oregon Department of Energy helps Oregonians make informed decisions and maintain a resilient and affordable energy system. We advance solutions to shape an equitable clean energy transition, protect the environment and public health, and responsibly balance energy needs and impacts for current and future generations.

What We Do

On behalf of Oregonians across the state, the Oregon Department of Energy achieves its mission by providing:

- A Central Repository of Energy Data, Information, and Analysis
- A Venue for Problem-Solving Oregon's Energy Challenges
- Energy Education and Technical Assistance
- Regulation and Oversight
- Energy Programs and Activities

Using Teams

Click to raise your hand.
Click again to lower.

Reactions

Video Options

Webcam On

Webcam Off

Camera

Camera

Chat

01:12

Chat People Raise React View Controls Notes Rooms Apps More Camera Mic Share Leave

Oregon Department of ENERGY

Welcome!

OREGON DEPARTMENT OF ENERGY

Audio Options

Mic Microphone Off

Mic Microphone On

The image shows a Microsoft Teams meeting window. The title bar at the top says 'Microsoft Teams meeting'. Below it is a toolbar with icons for Chat, People (2), Raise (hand icon), React (smiley face), View (grid), Controls (gear), Notes (notepad), Rooms (cubes), Apps (plus), More (three dots), Camera (with a dropdown arrow), Mic (with a dropdown arrow), Share (screen icon), and Leave (red phone icon). The main content area displays a presentation slide from the 'Oregon Department of ENERGY' with the text 'Welcome!' and the department's logo at the bottom left. On the right side of the screen, there is a video feed of a red flower. Below the video feed is a small thumbnail of a person's profile. Annotations with dashed lines point to various controls: 'Click to raise your hand. Click again to lower.' points to the 'Raise' button; 'Reactions' points to the 'React' button; 'Video Options' points to the 'Camera' dropdown; 'Webcam On' and 'Webcam Off' point to the 'Camera' dropdown options; 'Camera' points to the 'Camera' icon in the toolbar; 'Audio Options' points to the 'Mic' dropdown; 'Microphone Off' and 'Microphone On' point to the 'Mic' dropdown options; and 'Chat' points to the 'Chat' icon in the toolbar.

Advisory Committee Meeting

Setting the Stage

- We met with you all as part of a RAC throughout 2024
 - As we were setting up the Oregon BPS program
- We continue to interact with many of you as we implement OR BPS
 - We value your continued input to OR BPS!
- We would like to use this meeting as:
 - A review of program activity to-date
 - A review of proposed programmatic updates and clarifications to the standard that do not involve rulemaking
 - An opportunity for a check-in about the program

Oregon Building Performance Standard Program Progress Update

- **OR BPS team in place under ODOE Codes & Standards**
 - Blake Shelide – Manager – overall program management
 - Lisa Gartland – Facilities Engineer – building energy use
 - Madeline O'Dwyer – Operations and Policy Analyst – building inventory
 - Judy Stockwell – Public Service Representative – customer service
 - Andrew Johnson – Program Analyst – incentive programs
 - Ken Davies – Program Analyst – portal development, customer outreach
 - Ashley Pierce – Incentives Analyst – incentive programs

Program Progress This Time Last Year

- **Rules & underlying program standard in place**
 - ORS 330-300 and OR Standard 100 in place as of January 1, 2025
- **Property inventory development**
 - Data gathered from counties, mapped into GIS, UBIDs assigned, PIL created
- **Program materials prepared**
 - Guidance documents, EUI target tool, O&M/EMP template
- **Initial outreach to building owners**
 - Mailings with UBIDs and instructions to verify building information
- **Outreach to energy professionals**
 - Recruiting QEMs, QPs, QEAs for benchmarking, O&M/EMP reviews, energy audits

Program Progress

As of September 2026

- Updates to OR Standard 100 made in October 2025
 - Special Tier 2 Building Types
 - Building Tier Determination
 - Mixed-use Tier Determination
 - Grouped Buildings Provisions
 - Tier 2 Building Exemptions
- **Incentive programs**
 - ECAPP and BERI developed, now on second round of each program
- **Program portal development and roll out**
 - New comprehensive online site for compliance forms, questions, etc.

OR Standard 100 Updates Proposed for Your Consideration

- **Decarbonization Plans** – Sync plan dates up with other program dates
- **O&M and EMP work** – Checklist work by Qualified Person
- **Party Wall** – Define this term
- **County Parcel Numbers** – Remove requirement to report this
- **Exemption for Physical Occupancy < 50%** - Clarify how to find percentage
- **Exemption Combinations** – Allow stacking of exemptions
- **Energy Audit Provisions** – For new audits, previous audits
- **EEM Implementation** – Clarify goals, verification, and remediation
- **End-Use Allowances** – EUI deductions for parking areas, EV chargers, manufacturing/industrial use, agricultural use, outdoor equipment use

Decarbonization Plans

- Decarbonization plans alternate compliance path
 - For “participating campus” of buildings with district heating or cooling
 - Must have at least three buildings, at least 100,000 SF GFA total
- Decarbonization Plan Path
 - W1.1 Notify OR BPS by June 30, 2026
We have missed this date!
Move date to January 1, 2028
~180 days before July 1, 2028
 - W2.1.1 Final Plan due by June 30, 2027
Move date to July 1, 2028
Same as Tier 2 building date



O&M and EMP Work

- Explicitly require submission of checklists in OR Std 100 as opposed to actual plans
 - But buildings must keep plans or work documentation on hand
 - Allows softer introduction of these requirements to buildings that don't already follow these procedures
- **Require a QP to do this work, not a QEM**
 - Since O&M and EMP requirements are only for Tier 1 buildings
 - Gives this work the experience level it deserves
 - QP = Qualified Person, QEM = Qualified Energy Manager



Party Wall Definition

- **Mentioned in building definition:**

building: a structure, including mobile homes, manufactured homes, and other factory-built buildings, wholly or partially enclosed within exterior walls, or within exterior and *party walls*, and a roof, that affords shelter to persons, animals, or property.

- **Proposed party wall definition:**

Party wall: any wall between adjacent buildings separating one building from another by creating a real property boundary as a common support to structures on both sides of the boundary, which are under different ownership. *Party walls* are constructed without openings and create separate buildings.



County Parcel Numbers

- Not needed, since we track properties via UBID numbers
- Remove from list of reported items, renumber the following sections:
 - W5.1
 - Y6.1
 - Y6.2
 - Z6.1
 - Z5.2
 - Z6.7
 - Z6.8



Physical Occupancy

- Exemption for buildings with physical occupancy $\leq 50\%$ over 12 months
 - How is this percentage calculated?
 - Over which 12-month period is it calculated?



Physical Occupancy Exemption Calculation

- How is the physical occupancy rate calculated?
 - $\frac{\text{Occupied Gross Floor Area} \times \text{Number of Months Occupied}}{\text{Total Gross Floor Area} \times 12 \text{ Months}} \times 100$, value in %
 - May apply for exemption if this value is less than or equal to 50%
- Which 12 months should be used?
 - Exemption applications are due 180 before a building's compliance date
 - Therefore, base occupancy rate on 6 to 18 months before compliance date
 - This means you must wait to apply for this exemption!
- Proof of unoccupied status might need to include:
 - Rent rolls going back to when the space was last occupied, and/or
 - Certificate of occupancy date if it's newly constructed or renovated, and/or
 - Evidence the building is being marketed for rent

Combining Exemptions

Current Z4.1 b:

Exemptions. Covered commercial buildings are not eligible for exemption from the standards unless they meet at least one of the following criteria...

Proposed Z 4.1 b:

Exemptions. Covered commercial buildings are not eligible for exemption from the standards unless they meet ~~at least~~ one of the following criteria, **or a combination of multiple criteria (1 through 4) affecting more than 50% of the *building* square footage...**



Example of an Exemption Combination

- Z4.1 b Exemptions. Covered commercial buildings are not eligible for exemption from the standards unless they meet ~~at least~~ one of the following criteria, or a combination of multiple criteria (1 through 4) affecting 50% or more of the *building* square footage:
- 1. Certificate of Occupancy. The Tier 1 or Tier 2 building did not have a certificate of occupancy or temporary certificate of occupancy during all of the 12 months that preceded the date on which the eligible building owner's report is due.
- 2. Physical Occupancy. The Tier 1 or Tier 2 building did not have an actual rate of occupancy that exceeded 50 percent of the Tier 1 or Tier 2 building's capacity during all of the 12 months that preceded the date on which the eligible building owner's report is due.
- 3. Unconditioned and Semi-heated Space. The sum of the Tier 1 or Tier 2 building's gross floor area minus unconditioned spaces and semi-heated spaces is less than 35,000 square feet. Buildings approved for this exemption with gross floor area minus unconditioned and semi-heated spaces greater than 20,000 square feet but less than 35,000 square feet shall comply with Tier 2 building requirements of this standard. 79 Oregon Building Performance Standard (October 2025)
- 4. Manufacturing or Industrial. The primary use (greater than 50% of the gross floor area of the building) for the Tier 1 or Tier 2 building is manufacturing or another industrial use, as defined in accordance with the following use designations of the state of Oregon adoption of the International Building Code: i. Factory group F, or ii. High hazard group H

Example:

100,000 sq ft building:

- 45,000 sq ft manufacturing
- 40,000 sq ft unleased warehouse
- 15,000 sq ft office

Currently:

This building would not qualify for an exemption

Proposed:

Combine manufacturing / industrial and physical occupancy exemptions to earn an overall building exemption (although must apply 6 months before compliance date)

Energy Audit Provisions

- **Enhance audit reporting**
 - QEA must attest to audit rigor
 - QEA must provide info about rejected EEMs (Energy Efficiency Measures)
- **Clarify use of previous audits**
 - QEA must attest to previous audit's rigor
 - QEA can fill in any missing audit pieces
 - QEA must provide info about EEMs that were, and were not, implemented
 - QEA must outline implementation schedule going forward
 - QEA must quantify significant effects of significant building or cost changes on EEM energy savings and cost-effectiveness



Energy Efficiency Measure (EEM) Implementation

- If a Tier 1 building doesn't meet target, it must get an energy audit and implement EEMs... but then what?
- Need to clarify:
 - How many EEMS to implement
 - Which EEMs to implement
 - When to implement EEMs
 - What happens after implementation
 - What goal must be met
 - How to verify the goal was met
 - What to do if the goal was not met



How Many EEMs to Implement

- **Implement enough EEMs to reach the EUI target**
 - When following Conditional Compliance path
 - $EUI = \text{Energy Use Intensity} = \text{annual energy use} / \text{gross floor area}$
 - EUI target or EUI_t = building energy use intensity level to try to stay under
- **If EUI target can't be met, implement ALL cost-effective EEMs**
 - When following Investment Criteria path, or
Investment Criteria with Conditional Compliance path

Which EEMs to Implement

- Implement only cost-effective EEMs, which save more money than they cost
- Cost effectiveness can be based on Simple Payback from an Energy Audit
 - Simple Payback = Implementation Cost \$ / Annual \$ Savings, units of years
 - Should be less than the Effective Useful Life (EUL) of the EEM
- Cost effectiveness can be based on Return on Investment (ROI) from a Life Cycle Cost Assessment (LCCA)
 - $ROI = \text{Net \$ Savings over EUL} / \text{Total \$ Cost}$, both in present value
 - Dimensionless, should be greater than 1.0 for the EEM
- **FYI: EEMs that compromise historic integrity need not be implemented**
 - Must submit Form H: Historic Building Documentation
 - Not a building exemption, only applies to specific EEMs

When to Implement EEMs

- We recommend implementing EEMs as soon as possible, but...
- Equipment need not be replaced until it reaches the end of useful life
 - Some EEMs may be implemented after the compliance date
 - Add EEMs to the Energy Management Plan (EMP) if the equipment end of life is more than 5 years away
- **Financial and practical issues may be factored into the schedule**
 - Availability of funding
 - Other scheduled projects
 - Tenant considerations
- Report the EEM implementation schedule on Form E or Form L

What Happens after EEM Implementation

Goal – Verification – Remediation

- **Goal of EEM Implementation**
 - Meet EUI (Conditional Compliance path), or
 - Achieve 75% of estimated EUI reduction (either Investment Criteria path)
- **Verification of EEM Implementation**
 - EUI reporting on Form C, no later than 15 months after final EEM is complete
 - Either EUI is met (CC path) or 75% of estimated EUI reduction was achieved (IC paths)
 - If EUI isn't available (usually due to lack of utility bills) follow IPMVP procedures (see next slide) to verify proper implementation, and correct any issues
- **Remediation if Goal is not met**
 - Implement more cost-effective EEMs, if there are any available
 - Follow IPMVP procedures (see next slide) to verify proper implementation, and correct any issues

IPMVP for EEM Implementation Verification

IPMVP - International Performance Measurement & Verification Protocol

- **Option A – Retrofit Isolation (Key Parameters)**
 - Example: simple light fixture retrofit, verify fixtures and their operation before and after retrofit, measure or use specifications to get fixture energy use, assume hours of use stay the same
- **Option B – Retrofit Isolation (All Parameters)**
 - Example: light fixture retrofit with new controls, verify fixtures & control operations before & after retrofit, measure or use specifications to get fixture energy use, monitor hours of use
- **Option C – Whole Facility**
 - Use building metering, essentially what is done when EUI is reported
- **Option D – Calibrated Simulation**
 - Verify installation & operation, model energy use of entire building, used if building can't be metered and EEMs have significant interactive effects on energy savings

IPMVP Options A, B or D analysis must be reported and is subject to OR BPS approval

EEM Implementation Reporting Process

- **Submit the following forms for Tier 1 buildings where EUI > EUI target**
 - (Initial) Form C: EUI, due 180 days before compliance date
 - (Initial) Form E: Energy Audit by the compliance date
 - (Initial) Form L: Life Cycle Cost Assessment, required for IC w CC path and optional for other paths, by compliance date
 - Annual Form C: EUI, Annual Form E/L: EEM Implementation Update filed every year as needed
 - Final Form C: EUI, Final Form E/L: EEM Implementation Update filed within 15 months of final EEM implementation, **include IPMVP verification if EUI reduction goal wasn't met, or if EUI can't be reported**

End Use Allowances

- End Use Allowance = energy usage that can be deducted from net building energy use to calculate EUI
- Review of current end use allowances
 - Electric Vehicle (EV) Charging
 - Communications Equipment
- Proposed new end use allowances
 - Parking Garages and Parking Lots
 - Manufacturing or Agricultural Equipment
 - Equipment used outside the building envelope



Current End Use Allowances

- **End Use Allowances for submetered equipment**
 - EV Chargers and Communication Equipment (antennae, cell phone towers, not related to primary building use)
 - Energy use may be deducted from building measured net energy use when finding EUI
- **If not submetered, EV Charger use may be estimated**
 - Communications equipment may not
 - Estimated via a method acceptable to OR BPS

Proposed EV Charger Allowances, in annual energy use per charger

Based on *Energy STAR Portfolio Manager Technical Reference: EV Charging and the ENERGY STAR Score in the United States and Canada*

EV Charger Type	Annual kBtu/Charger Allowance
Level 1	8,663
Level 2	8,663
Level 3 (DC Fast)	25,549

Proposed New End Use Allowances

Parking Garages and Parking Lots

- **Parking Garages and Parking Lots**
 - Parking Garage area not included in Gross Floor Area (GFA)
 - However, nothing is explicitly stated in OR BPS about parking energy use allowances
- **We propose to handle this similarly to the allowances for EV Chargers**
 - If submetered, energy use may be deducted from building measured net energy use for EUI
 - If not submetered, estimated using a method acceptable to OR BPS

Proposed Parking Area Allowances, in energy use per square foot of parking area

Based on *Energy STAR Portfolio Manager Technical Reference: Parking and the ENERGY STAR Score in the United States and Canada*

Parking Area Type	Annual kBtu/SF Allowance
Completely Enclosed	6.687
Partially Enclosed	4.268
Open Parking Lot	0.416

Proposed New End Use Allowances

Manufacturing and Agricultural

- Could apply to a mixed-use building, a building that shares metering with Manufacturing or Agricultural facilities, or to a set of Grouped Buildings that includes Manufacturing and Agricultural buildings
 - If submetered, manufacturing/industrial energy use can be directly deducted from the building measured net energy use
 - If not submetered, manufacturing/industrial may be metered on a short-term basis, annual energy use can be estimated using an engineering analysis that is acceptable to OR BPS
 - Note that EUI would be calculated on the basis of the non-manufacturing and non-agricultural gross floor area ($EUI = \text{net energy use} / \text{gross floor area}$)

Proposed New End Use Allowances

Outdoor Equipment

- Could apply to golf carts, forklifts, outdoor pools, outdoor lighting, etc.
 - Specialized lighting, like runway lighting at an airport, but not typical outdoor lighting for building safety, entrances, and walkways
 - Equipment MUST be used outside the building envelope
 - Not a forklift used inside a warehouse, and not an indoor pool
 - If submetered, equipment energy use can be directly deducted from the building measured net energy use
 - If not submetered, equipment may be metered on a short-term basis, annual energy use can be estimated using an engineering analysis that is acceptable to OR BPS

End Use Allowance Calculations

- Submit engineering analysis when or before submitting EUI via Form C
- What is “acceptable” engineering analysis?
 - Vetted calculation tools or estimates of energy use from manufacturers, researchers, government agencies
 - Reasonable extrapolations of short-term energy use based on weather variables or some throughput metric (manufactured goods produced or the like)
- Is your engineering methodology more involved, time consuming, and costly than doing an energy audit?
 - Putting effort into an energy audit pays off in EEM implementation and energy savings, and is generally a better investment
 - If end use allowances aren’t taken, EEMs for manufacturing, agricultural, and outdoor equipment may be included in the energy audit and counted towards EUI reduction goals

Questions, Comments, Feedback?

- We'll take questions and comments now
 - Until we run out of time for today's presentation
- We welcome your questions, comments, and feedback via email
 - Until Friday, October 16, 2026
 - OregonBPS@energy.oregon.gov
- Materials for review are on the OR BPS Engagement page, under the section for this September 18 presentation
 - Includes this presentation and OR Std 100 Proposed Revisions September 2026
 - <https://www.oregon.gov/energy/save-energy/Pages/BPS-Engagement.aspx>



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<https://www.oregon.gov/energy/save-energy/Pages/BPS.aspx>