

# Oregon Department of **ENERGY**

EO 20-04  
Implementation:  
Energy Code  
Stakeholders

Facilitator: Roger Kainu  
April 23, 2024  
8:30-10:00am



# Agenda

Topic	Lead	Action	Time
Intro	ODOE staff	Share meeting description	1 min
Overview of CIEB and RMSB	BCD and ODOE staff	Share recent meeting actions	10 min
Q/A	All	Question and answer time	5 min
Reach Code(s)	BCD	Share status	10 min
Q/A	All	Question and answer time	5 min
Federal & ODOE incentives for new construction	ODOE	Share incentive opportunities	10 min
Q/A	All	Question and answer time	5 min
COMcheck Update	BCD	Share latest status	5 min
Q/A	All	Question and answer time	5 min
Run through BCD website & videos	BCD	Tour webpages for information	15 min
Q/A	All	Question and answer time	5 min
Wrap-up	All	Next meeting – TBD	5 min

# RMSB Meeting

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- Residential and Manufactured Structures Board (RMSB)
  - Met April 3, 2024
    - Approved 2023 Oregon Residential Reach Code (ORRC)
    - 2023 ORRC - Focused on incentives, simplicity, and performance
      - ENERGY STAR Version 3.2 (Rev. 13)
      - ZERH Version 2 (Rev. 1)
      - Phius 2021 CORE & ZERO
    - Rulemaking anticipated in Late May/Early June
    - Anticipated effective date July 1, 2024

# CIEB Meeting

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- Construction Industry Energy Board (CIEB)
  - Met April 10, 2024
    - Approved Statewide Code Interpretation No. 23-02
      - Condensate drainage from a heat pump water heater
    - Approved Statewide Alternative Method (SAM) No. 24-01
      - Allow use of the 2021 International Energy Conservation Code (IECC-R) – Residential Provisions as an alternative to Chapter 11 of the 2023 ORSC.
    - Reviewed Northwest Power and Conservation Council power plan

# Reach Codes

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- 2023 ORRC Energy Performance over 2023 ORSC
  - ENERGY STAR v3.2 (Rev 13) – Approx. 15% over 2023 ORSC
    - Halfway point to 2029 ORSC
  - ZERH Version 2 (Rev. 1) – Approx 20% over 2023 ORSC
  - Passive House (Phius) – Exceeds ZERH V2 (Rev. 1)
- 2024 Oregon Commercial Reach Code (OCRC)
  - Anticipate kick-off by CIEB on June 11, 2024
  - Performance or Prescriptive?

# Reach Code – ENERGY STAR



## ENERGY STAR Single-Family New Homes National Program Requirements, Version 3.2 (Rev. 13)

Slab Edge Perimeter	R-10 w/ 4-ft. Vertical Depth
Rim and Band Joist	R-20+5 <u>c.i</u>
Wall Insulation - Above Grade	R-20+5 c.i. (U-0.045)
Windows	U-0.27/SHGC 0.40
Exterior Doors	U-0.17
Flat Ceilings	R-60 (U-0.017)
Air Sealing	3.0 ACH@50 Pa
Interior Lighting	100% LED
Exterior Lighting	

Heating (Gas)	AFUE 95%
Cooling (Gas)	14 SEER
Split Heat Pump (Electric)	HSPF 9.2
Split Cooling (Electric)	16 SEER
Water Heater (Gas)	UEF = 0.90
Water Heater (Electric)	UEF = 2.20

**N1102.3 Verification by approved agency.** Verification of compliance with Section N1102.2 shall be completed by a Certified Rater or Approved Inspector, as defined by ANSI / RESNET / ICC Standard 301, or an equivalent designation as determined by a Home Certification Organization (HCO) under the ENERGY STAR program.



# Reach Code - ZERH

## ZERH Version 2 (Rev. 1)

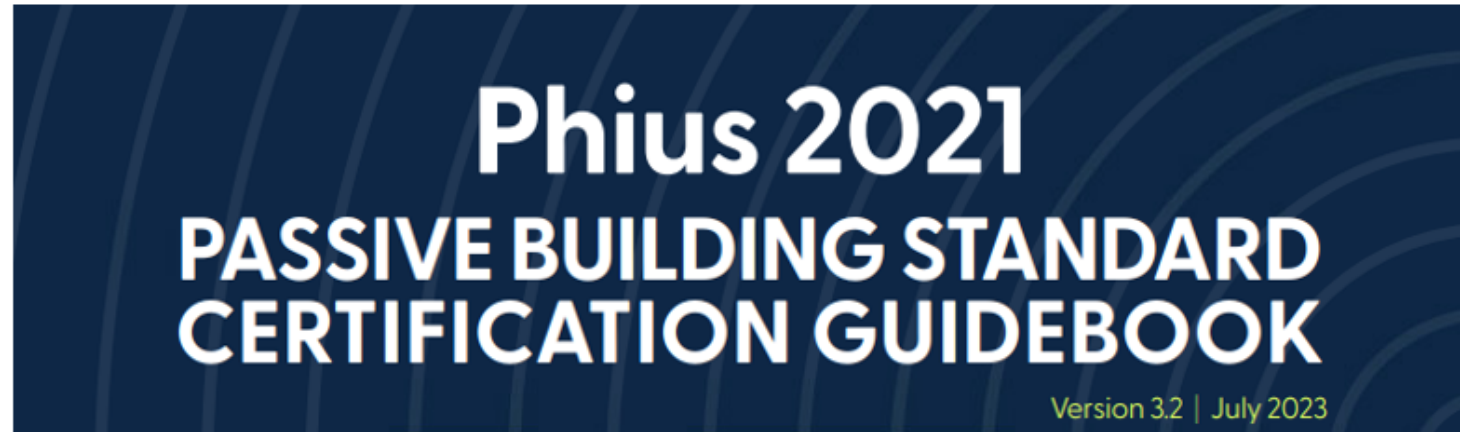
Slab Edge Perimeter	R-10 w/4-ft. Vertical Depth
Rim and Band Joist	R-20+5 <u>c.i</u>
Wall Insulation - Above Grade	R-20+5 c.i. (U-0.045)
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Heating (Gas)	AFUE 95%
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Split Heat Pump (Electric)	HSPF 9.5
Split Cooling (Electric)	16 SEER
Water Heater (Gas)	UEF = 0.95
Water Heater (Electric)	UEF = 2.57

**N1103.3 Verification by approved agency.** Verification of compliance with Section N1103.2 shall be completed by a Certified Rater or an Approved Inspector under the HCO for ZERH certification system.

# Reach Code - Phius

Put revised Phius language  
(CORE & ZERO) in here?



**N1104.2 PHIUS compliance.** Compliance based on the Phius Certification process for single family projects includes energy modeling, or use of prescriptive measures, and design consulting performed by a Certified Passive House Consultant (CPHC) to demonstrate compliance with Phius program energy performance metrics, as well as on-site verification of all critical project energy features by a Phius Certified Rater. Additionally, all projects must meet the mandatory criteria and be certified under the EPA ENERGY STAR Single-Family New Homes (ESTAR), U.S. Department Of Energy (USDOE), Zero Energy Ready Homes (ZERH), and EPA Indoor airPLUS (IAP) programs. Compliance shall be in accordance with Section N1104.2.1 or Section N1104.2.2.



# Incentives for New Construction

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- Federal Tax Credits for Certifications thru 2032 (45L)
  - ENERGY STAR
    - Single Family Homes - \$2,500
    - Manufactured Homes - \$2,500
    - Multifamily Homes - \$500 with \$2,500 available when prevailing wage requirements are met.
      - Sold after January 1, 2025
  - ZERH - \$5,000
    - Sold after January 1, 2024

*See IRS Notice 2023-65 for guidance*

# ODOE Incentives

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- Oregon Solar + Storage Rebate Program
  - Funds solar and solar with paired storage systems for low- or moderate-income homeowners and organizations that serve them.
- Energy Efficient Wildfire Rebuilding Incentive
  - Incentivizes energy efficient rebuilding of residential and commercial structures destroyed during the 2020 Labor Day wildfires.
- Heat Pump Incentive Programs
  - Community Heat Pump Deployment Program.
  - Oregon Rental Homes Heat Pump Program.

# 2025 EPS New Construction

- 2023 ORSC-based program launches January 2025
- Incentive options under development
- Changes in 2023 ORSC will require many builders to increase their efficiency investments to qualify for EPS incentives
  - Ducts inside is the recommended EPS strategy for qualification
- Energy Trust is encouraging EPS verifiers to start strategizing and discussing this now with their builders





# 2025 EPS New Construction

## Base incentives

**Whole home  
incentives based on  
percent above code**

## Add on incentives

Solar ready  
incentives

EV ready  
incentives

Solar +  
storage ready  
incentives

Net zero  
incentives

Affordable/  
rural/tribal  
incentives

Early design  
assistance  
incentives

**COMING SOON:** Solar + storage installed incentives

# COMcheck Update

- Web-based energy code compliance tool for commercial and high-rise residential buildings
  - 2023 OSSC & ASHRAE Standard 90.1-2022
  - Must be available for the 2023 OSSC to be effective July 1, 2024



**COMcheck-Web™**

COMcheck-Web simplifies commercial and high-rise residential energy code compliance.

It performs just like [COMcheck](#), the desktop version, but you don't need to download or install any software on your computer.

[» Start COMcheck-Web](#)

Try the New COMcheck-Web! 

A new version of COMcheck-Web is being developed that provides better user navigation and experience. *NOTE: At this time, the new version of COMcheck-Web is intended for evaluation purposes only and cannot be used in project submittals.*

- ✓ Advanced Reporting
- ✓ Wizards
- ✓ Data Transfer
- ✓ Mobile App

[» Try the New COMcheck-Web](#)

# Overview - BCD Website

The screenshot displays the Oregon Building Codes Division (BCD) website. At the top, the navigation bar includes links for Home, BCD news, Board, **Code programs** (circled in red with an arrow pointing to it), Laws & rules, Licensing, Continuing education, Inspector training, Permits, Forms, Contact us, and Email updates. Below the navigation bar is the BCD logo and the text "Building Codes Division Better Buildings for Oregon".

The main content area is divided into two sections: "Oregon State Building Code" and "Energy Code Program".

**Oregon State Building Code**

- CODE PROGRAMS**
  - Adopted codes online
  - Contact a code specialist
  - Codebook history
  - Codebook vendors
  - Statewide alternate methods
  - Statewide code interpretations
  - Appeals
- Code programs**
  - Commercial structures
  - Residential structures
  - Energy efficiency** (highlighted with a red arrow)
  - Reach Code
- Code adoption and review**

**Energy Code Program**

- CODE PROGRAMS**
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**Adopted codes and standards**

The division works with building officials, technical committees, advisory boards, and the public to adopt, amend, and interpret the state building code, which includes uniform energy conservation standards for the construction methods, products, and materials used for the new construction, reconstruction, alteration, or repair of buildings.

**Commercial Energy Code**

Commercial energy provisions are located in the Oregon Energy Efficiency Specialty Code (OEESC).  
Get more information about the...  
**Commercial Energy Code**

**Residential Energy Code**

Residential energy provisions are located in Chapter 11 of the Oregon Residential Specialty Code (ORSC).  
Get more information about the...  
**Residential Energy Code** (highlighted with a red arrow)

**Reach Code**

The Oregon Reach Code is a statewide optional energy construction standard, separate from the state building code.  
**Oregon Reach Code**

**Executive order**

On March 10, 2020, the Governor issued Executive Order (EO) 20-04, with performance-based directives intended to build on the ongoing prescriptive requirements of EO 17-20. Follow the division's progress...  
**Executive order 20-04**



# Overview - BCD Website

## CODE PROGRAMS

Adopted codes online  
Contact a code specialist  
Codebook history  
Codebook vendors  
Statewide alternate methods  
Statewide code interpretations  
Appeals

## Code adoption and review

## Adopted residential energy code

### 2023 Oregon Residential Specialty Code (ORSC) ←

#### Chapter 11 - Energy Efficiency

Effective Oct. 1, 2023 and mandatory April 1, 2024

Based on 2021 International Residential Code (IRC)

#### Code update training and adoption resources **NEW** ←

## Compliance tools ←

- Blower door results reporting checklist **Updated**
- Prescriptive solar photovoltaic installation checklist
- Residential energy additional measure selection **Updated**
- Measure 6 thermal performance calculator **x Updated**
- Envelope trade-off calculator **x New**

## BCD Technical bulletins ←

- Insulation and installation of ducts and equipment **Updated**
- Balanced mechanical whole-house ventilation
- Slab-on-grade insulation for new dwellings

## Energy incentive programs ←

- ENERGY STAR | § 45L Tax Credits for Home Builders
- US DOE | Zero Energy Ready Home (ZERH) - Tax Credits
- Oregon Department of Energy | Tax incentives
- Energy Trust of Oregon | New construction
- Database of State Incentives for Renewables & Efficiency (DSIRE)

## Additional energy resources

- US DOE | Building Energy Codes Program - Technical assistance
- Building America Solution Center
  - Building Components
  - Guides A-Z

# Plan Intake & Inspection Training

COMING SOON



2023 ORSC

## PLAN INTAKE AND INSPECTION

CHAPTER 11  
ENERGY EFFICIENCY



Oregon Residential Specialty Code

## Meeting Wrap-up



- Recording will be available
- Action items identified and distributed
- Next meeting date – TBD
- Any questions, please send to:  
[Roger.Kainu@Energy.Oregon.Gov](mailto:Roger.Kainu@Energy.Oregon.Gov)
- Meeting materials:  
<https://www.oregon.gov/energy/Get-Involved/Pages/Energy-Code-Stakeholder-Panel.aspx>
- BCD:  
<https://www.oregon.gov/bcd/Pages/index.aspx>