

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

- 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

- 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

- 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 c.i.
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)

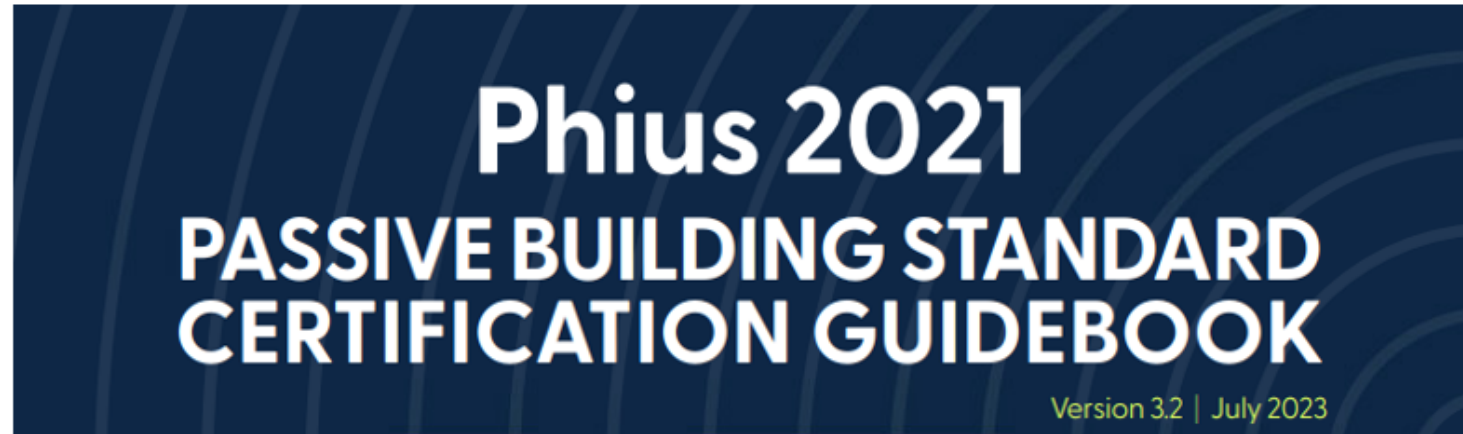
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Heating (Gas)	AFUE 95%
Cooling (Gas)	14 SEER
Split Heat Pump (Electric)	HSPF 9.5
Split Cooling (Electric)	16 SEER
Water Heater (Gas)	UEF = 0.95
Water Heater (Electric)	UEF = 2.57

[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

- 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

- 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

Add on incentives

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

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

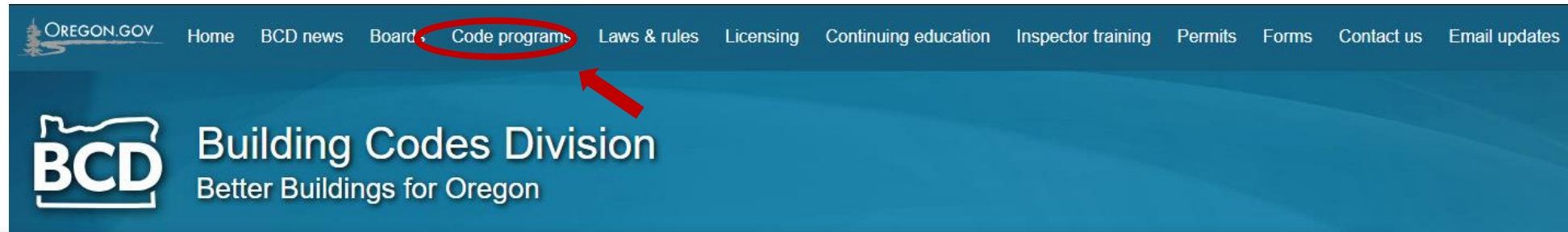
COMcheck Update

- 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



The screenshot shows the COMcheck-Web website interface. At the top left is the logo, which consists of a blue outline of a building with a red checkmark inside, followed by the text "COMcheck-Web™" in blue. Below the logo, the text reads: "COMcheck-Web simplifies commercial and high-rise residential energy code compliance." and "It performs just like [COMcheck](#), the desktop version, but you don't need to download or install any software on your computer." There are two buttons: a blue button with white text that says "» Start COMcheck-Web" and a blue button with white text that says "» Try the New COMcheck-Web". A red arrow points to the "Try the New COMcheck-Web" button. Below the buttons, there is a section titled "Try the New COMcheck-Web!" with a red arrow pointing to it. The text below this section says: "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.*" Below this text is a list of features with red checkmarks: "Advanced Reporting", "Wizards", "Data Transfer", and "Mobile App". At the bottom of the page is another blue button with white text that says "» Try the New COMcheck-Web".

Overview - BCD Website



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 adoption and review

The Building Codes Division adopts, administers each code through special professionals, advisory boards, and the uniform building code throughout the s

Code programs

Commercial structures

Residential structures

Energy efficiency

Reach Code

Energy Code Program

CODE PROGRAMS

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Code adoption and review

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 >

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 >



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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 **Updated**
- Envelope trade-off calculator **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

- Meeting materials:
<https://www.oregon.gov/energy/Get-Involved/Pages/Energy-Code-Stakeholder-Panel.aspx>

- BCD:
<https://www.oregon.gov/bcd/Pages/index.aspx>