

# Oregon Residential Reach Code

## 2023 edition

Under Oregon Revised Statute (ORS) 455.500, the division, with approval from the appropriate advisory board, shall adopt a Reach Code. The Oregon Residential Reach Code is an optional set of standards providing a choice for builders, consumers, contractors, and others. Customers can choose to build to the Oregon Residential Specialty Code (ORSC) or to this code.

Use of the Oregon Residential Reach Code shall be approved by local municipalities and is at the discretion of the applicant. Elected use of the residential reach code does not limit the authority of local building officials to consider proposed alternate methods encompassing the construction standards included herein.

The provisions of this code replace Chapter 11 of the 2023 ORSC.

### SECTION N1101 SCOPE AND APPLICATION

**N1101.1 General.** The provisions of this reach code replace Chapter 11 of the 2023 *Oregon Residential Specialty Code* and regulate the exterior envelope, as well as the design, construction and selection of heating, ventilating and air-conditioning systems, piping insulation, lighting and power required for the purpose of effective conservation of energy within a building or structure governed by this code.

**N1101.1.1 ORSC minimum requirements.** In addition to the selected reach code compliance path in N1101.2, the following sections from the ORSC shall be met as applicable: N1104.2, Insulation materials; N1104.9, Moisture control; N1105.4.1.2, Smart thermostat; and N1106.3, Protection of piping insulation.

**N1101.2 Compliance paths.** New dwellings shall meet the requirements of one of the following compliance paths:

1. ENERGY STAR Single-Family New Homes National Program Version 3.2 (Rev. 13) in accordance with Section N1102.
2. US Department of Energy (USDOE) Zero Energy Ready Home Single Family Homes National Program Requirements Version 2 (Rev. 1) in accordance with Section N1103.
3. Passive House US (Phius) 2021 Certification for single-family homes, in accordance with Section N1104.

The use of the 2020 edition of the *Water Efficiency and Sanitation Standard for the Built Environment* (WESand), in accordance with Section N1105, is permitted under any compliance path.

**N1101.3 Information on plans and specifications.** Plans and specifications shall show in sufficient detail all pertinent data and features of the building and the equipment and systems as herein governed, including, but not limited to: exterior envelope component materials; R-values of insulating materials; fenestration U-factors and SHGC value; HVAC equipment efficiency performance and system controls; ductwork location; lighting; and the other pertinent data to indicate compliance with the requirements of the chapter.

Plans shall indicate the reach code compliance path selected. All compliance paths require ENERGY STAR compliance. An Energy Rating Index (ERI) Target score, or equivalent, per ANSI/RESNET/ICC 301 shall be submitted with the construction documents. Plans and specifications shall reflect the assumptions used for the design ERI.

**N1101.4 Final certification.** The certified rater shall make final certification results and the certification compliance report available for review by the *building official*. An Energy Rating Index (ERI) Actual score, or equivalent, per ANSI/RESNET/ICC 301 equal to or lower than the Energy Rating Index (ERI) Target score shall be submitted.

**N1101.4.1 Reach code noncompliance.** If the selected reach code compliance path in N1101.2 is not attained, the *building official* may issue a certificate of occupancy in accordance with Section R110.3, or a temporary certificate of occupancy, in accordance with Section R110.4, where the building or structure complies with Chapter 11 of the 2023 *Oregon Residential Specialty Code*.

### SECTION N1102 ENERGY STAR SINGLE-FAMILY NEW HOMES PROGRAM COMPLIANCE

**N1102.1 Scope.** This section establishes criteria for compliance using the ENERGY STAR Single-Family New Homes National Program Version 3.2 (Rev. 13).

**N1102.2 ENERGY STAR Single-Family New Homes (SFNH) National Program compliance.** Compliance based on the ENERGY STAR Single-Family New Homes National Program Version 3.2 (Rev. 13) including but not limited to energy modeling to demonstrate compliance with ENERGY STAR program energy performance metrics and on-site verification of all critical project energy features by a Certified Rater or Approved Inspector. All documentation and verification shall be in accordance with the ENERGY STAR Single-Family New Homes National Program Version 3.2 (Rev. 13).

**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.

### **SECTION N1103 USDOE ZERO ENERGY READY HOME (ZERH) SINGLE FAMILY HOMES PROGRAM COMPLIANCE**

**N1103.1 Scope.** This section establishes criteria for compliance using the US Department of Energy (USDOE) Zero Energy Ready Home Single Family Homes National Program Requirements Version 2 (Rev. 1).

**N1103.2 ZERH compliance.** Compliance based on the USDOE Zero Energy Ready Home Single Family Homes National Program Requirements Version 2 (Rev. 1) process including but not limited to: energy modeling to demonstrate compliance with ZERH program energy performance metrics and on-site verification of all critical project energy features by a Certified Rater, or Approved Inspector, certified by a qualifying USDOE Home Certification Organization for Zero Energy Ready Home (HCO for ZERH).

**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.

### **SECTION N1104 PASSIVE HOUSE US (PHIUS) 2021 CERTIFICATION FOR SINGLE-FAMILY HOMES**

**N1104.1 Scope.** This section establishes criteria for compliance using the 2021 Phius Certification for single-family homes.

**N1104.2 Phius compliance.** Compliance based on the Phius Certification 2021 process for single family projects includes energy modeling in accordance with either the Phius Core 2021 or Phius Zero 2021 standard, or use of prescriptive measures, and design consulting performed by a Certified Passive House Consultant 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 ENERGY STAR Single-Family New Homes, USDOE Zero Energy Ready Homes, and EPA Indoor airPLUS (IAP) programs. Compliance shall be in accordance with Section N1104.2.1 or Section N1104.2.2.

**N1104.2.1 Prescriptive path.** Compliance based on the use of prescriptive measures shall be conducted in accordance with Section N-7, of Appendix N, of the *Phius Certification Guidebook* Version 3.2.

**N1104.2.2 Performance path.** Compliance based on the use of the Phius Performance Path shall be conducted in accordance with *Phius Certification Guidebook* Version 3.2.

**N1104.3 Verification by approved agency.** Verification of compliance with Section N1104.1 as outlined in Section N1104.1 shall be completed by a Phius Certified Rater at the authority having jurisdiction or an *approved* third-party inspection agency in accordance with Section R109.2.

### **SECTION N1105 PLUMBING FIXTURE EFFICIENCY**

**N1105.1 General.** This section shall apply to plumbing fixture efficiency.

**N1105.1.1 Fixture efficiency.** Fixture efficiency shall be per the *Plumbing Code*.

**N1105.2 Application of WESStand.** Those portions of the 2020 WESStand, *Water Efficiency and Sanitation Standard for the Built Environment*, as published by International Association of Plumbing and Mechanical Officials (IAPMO) shall apply, where applicable to the building or *dwelling unit*.