

The following is a summary of significant changes in the 2021 Oregon Energy Efficiency Specialty Code (OEESC) from the previous edition. The 2021 OEESC is based on ASHRAE Standard 90.1-2019. This summary is intended to help with the transition from the previous edition and does not include all changes adopted in the 2021 OEESC.

Significant changes to ASHRAE Standard 90.1

No.	Section	Heading / Change summary
1	Tables 5.5-4 and -5	Fenestration. For vertical fenestration, the categories for “non-metal framed” and “metal framed” products were combined. Single U-factor requirement, regardless of frame construction material. Fixed frame metal requires better performance; non-metal frames have less restrictive requirement. Swinging door U-factor improved to 0.63.
2	5.4.3	Building air leakage. Air leakage test required for all structures. Exception from testing when air sealing design and field verification under Section 5.9.1. Fiscal impact: <i>Potential cost increase for testing.</i>
3	5.4.3.3	Vestibules. Air curtain exception added (2014 OEESC and 2018 IECC).
4	6.6	ASHRAE 90.4 for Data Centers. Alternate compliance path for use of 90.4 data center standard for HVAC systems. (See BCD modification to require use of 90.4 for new buildings with Data Centers).
5	Section 6	Pump efficiency. Federal efficiency standards brought into Section 6.
6	6.8.1 Efficiency Tables	Expansion of tables. New product types covered. Tables combined, added and deleted to align with latest federal regulations. Efficiency for specialty equipment clearly delineated, eliminating confusion from previous editions.
7	6.5.3.1.3	Fan Efficiency Grade. New efficiency metric (FEI) for fans to replace “FEG”. Unlike FEG, FEI considers motors and drives, not just fans.
8	6.5.6.1.1	Dwelling unit heat recovery. Apartments (nontransient dwelling) require 60% enthalpy recovery, heating mode only, in Oregon climate zones.
9	Tables 9.5.1 and 9.6.1	Lighting power allowance: Lowered power allowances for many building types (Building Area) and Space Types (Space-by-Space method). Updated to align with current (at time of review) LED lighting efficiencies. Calculations allowing for geometry of room.
10	9.3	Simplified building compliance. If office, retail and school occupancy comprises at least 80 percent of buildings under 25,000 sq. ft., then simplified compliance path is allowed. Aligns with HVAC simplified path.
11	9.4.1.1	Daylight control. Stepped control removed. Continuous dimming control for daylight zones.
12	9.4.1.2	Parking garage automatic control. Updated detection and control period.
13	9.4.1.1(e)	Sidelight area. Clarification to exceptions for distance and inclusion of natural obstructions.

New Oregon-specific amendments proposed

Section	Heading / Change summary
6.2.2, 6.5.11, 8.2.1 and 12	ANSI/ASHRAE Standard 90.4-2019, Energy Standard for Data Centers. 90.1-2019 incorporates a path to use Standard 90.4 for Data Center HVAC and power distribution. Modifications align definitions with 90.4, clarifies that 90.4-2019 is the compliance path, and requires compliance with 90.4 for new buildings and new systems in existing buildings that serve only the data center. Meets Executive Order 17-20 for identifying high energy use building types for additional consideration.
Scope and 9.4.3	Dwelling unit lighting. Align scope and lighting requirements so that any multifamily residential constructed under the OSSC must comply with the Chapter 13 energy provisions. Dwelling units are exempt from control and power density requirements if 100% high efficacy, aligning with ORSC energy provisions. Exception remains for dimmed fixtures.
5.1.2.3 and 6.5.8.3	Radiant spot heating. From 2014 OEESC: Allowance for limited spot heating in enclosed spaces without triggering envelope requirements under Section 5; spaces meeting this section retain unconditioned space designation.
6.4.3.5.1	Packaged HVAC equipment with electric heat. From 2014 OEESC: Updates for improved enforcement. Packaged units for new construction with 20-ton cooling capacity or less shall not have electric supplemental heating over 6 kW. Equipment shall have heat pump operation for the first stage of heating.
5.4.3.3	Vestibule compliance option. 90.1-2019 sets a mandate for building air leakage testing. This is an optional path for compliance if a building air leakage test is 25% lower than code minimum. Limited to structures under 25,000 sq. ft. Reduced air leakage savings exceed savings from vestibule.
8.4.2	Controlled receptacle compliance option. Alternate to mandatory controlled receptacles for structures that improve overall performance, envelope performance or lighting power performance.