



**2021 Oregon Electrical Specialty Code Adoption
Including Low-rise Residential Electrical Provisions**

Opportunity for public input:

Those who would like to provide testimony should virtually attend a public hearing on Jan. 19, 2021, at 9:30 a.m. The hearing will be located virtually and at the Building Codes Division, Conference Room A, and all attendance from the public will be virtual and offered via GoToMeeting and telephone.

Written comments may be submitted to the BCD rules coordinator, at rulescoordinator.bcd@oregon.gov, or to the address below. All written comments must be received by Jan. 29, 2021 at 5 p.m.

If you wish to provide oral testimony at the hearing, the best way to connect is to join the meeting from your computer, tablet or mobile device with internet access using a headset or earphones with a microphone. If you are unable to connect through your computer, tablet or mobile device, you can dial in using your phone. Use the following information to connect to the meeting.

By computer, tablet, or mobile device:

<https://global.gotomeeting.com/join/684322621>

If you are new to GoToMeeting, you can install the app now and be ready when your first meeting starts: <https://global.gotomeeting.com/install/684322621>

By phone:

United States: +1 (408) 650-3123

Access Code: 684-322-621

(For supported devices, tap a one-touch number below to join instantly.)

- One-touch: <tel:+14086503123,,684322621#>

Get more information about giving testimony: <https://www.oregon.gov/bcd/Documents/GoToMeeting-process.pdf>

If you have any questions about the hearing please contact the BCD rules coordinator at rulescoordinator.bcd@oregon.gov.

Information about the 2021 Oregon Electrical Specialty Code (OESC) adoption process can be found on the [2021 OESC code adoption webpage](#). This page contains all the materials related to the adoption process, including the [code review committee summary matrix](#).

Live broadcast via the internet:

To view the public hearing live, click on “[View live meeting](#),” or go to the Oregon Building Codes Division webpage at <https://www.oregon.gov/bcd/Pages/index.aspx>, and click on “View live meetings.”



Purpose of the rule:

These proposed rules adopt the 2021 Oregon Electrical Specialty Code (OESC) and the low-rise residential electrical provisions of the OESC. The 2021 OESC is based on the 2020 edition of the National Electrical Code, with Oregon specific amendments.

Citation:

Amend: 918-305-0005, 918-305-0100, 918-305-0105, 918-306-0005.
These proposed rules become effective April 1, 2021.

History:

The division solicited public code proposals for the 2021 OESC. The Electrical and Elevator Board selected a code review committee to review the base code, public proposals, Oregon amendments, alternate methods, and code interpretations. The OESC review committee completed an analysis of the 2021 National Electrical Code changes, existing Oregon code amendments, statewide interpretations, alternate method rulings, and public code amendment proposals. The committee met four times beginning Dec. 18, 2019, finalizing its recommendations to the board on Jan. 22, 2020. On July 23, 2020, the Electrical and Elevator Board approved the review committee's recommendation for the 2021 OESC and recommended that the code be sent to public hearing. On Sept. 16, 2020, the Residential and Manufactured Structures Board approved the review committee's recommendation for the low-rise residential electrical provisions and recommended that the code be sent to public hearing.

Contact:

If you have questions or need further information, contact Keith Anderson, Electrical Program Chief, at 503.378.4459 or william.k.anderson@oregon.gov.

OFFICE OF THE SECRETARY OF STATE

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ARCHIVES DIVISION

STEPHANIE CLARK
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NOTICE OF PROPOSED RULEMAKING
INCLUDING STATEMENT OF NEED & FISCAL IMPACT

CHAPTER 918
DEPARTMENT OF CONSUMER AND BUSINESS SERVICES
BUILDING CODES DIVISION

FILED

12/23/2020 10:09 AM
ARCHIVES DIVISION
SECRETARY OF STATE

FILING CAPTION: Adopts 2021 Oregon Electrical Specialty Code and low-rise electrical provisions of the 2021 ORSC

LAST DAY AND TIME TO OFFER COMMENT TO AGENCY: 01/29/2021 5:00 PM

The Agency requests public comment on whether other options should be considered for achieving the rule's substantive goals while reducing negative economic impact of the rule on business.

CONTACT: Laura Burns
503-373-0226
laura.l.burns@oregon.gov

1535 Edgewater St. NW
Salem, OR 97304

Filed By:
Laura Burns
Rules Coordinator

HEARING(S)

Auxiliary aids for persons with disabilities are available upon advance request. Notify the contact listed above.

DATE: 01/19/2021

TIME: 9:30 AM - 10:00 AM

OFFICER: Andy Boulton

ADDRESS: Building Codes Division

1535 Edgewater St. NW

Salem, OR 97304

SPECIAL INSTRUCTIONS:

Please join from your computer, tablet, or smartphone.
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NEED FOR THE RULE(S):

ORS 455.030 and 455.110 require the division to adopt a state building code to govern the construction, reconstruction, alteration, and repair of buildings and other structures. The law further requires the building code to contain uniform performance standards providing reasonable safeguards for health, safety, welfare, comfort, and security of the residents of Oregon who are occupants and users of buildings and to provide for the use of modern methods, materials, and maximum energy conservation. The division, with the approval of the appropriate board, may

amend such codes provided it conforms, insofar as it is practicable, to model building codes generally accepted and in use throughout the United States.

Under ORS 479.730 the division, with the approval of the Electrical and Elevator Board, adopts rules setting minimum safety standards for workmanship and materials in various classifications of electrical installations, known as the Oregon Electrical Specialty Code (OESC). ORS 455.610 requires the division, with the approval of the Residential and Manufactured Structures Board, to adopt, and amend as necessary, a low-rise residential code that contains all the requirements, including electrical provisions, related to the construction of residential dwellings three stories or less above grade. The low-rise electrical provisions of the Oregon Residential Specialty Code are adopted in the OESC.

The current OESC is based upon the 2017 edition of the NFPA 70 and National Electrical Code (NEC), with Oregon amendments and contains the electrical provisions for low-rise residential structures. These proposed rules are needed to update the electrical code by adopting the 2020 edition of the NEC with Oregon amendments, which also updates the low-rise electrical provisions of the Oregon Residential Specialty Code.

DOCUMENTS RELIED UPON, AND WHERE THEY ARE AVAILABLE:

Draft rules are available from the division's rules coordinator located at 1535 Edgewater Street NW, Salem, OR 97304 and are posted on the division's Web site at: <http://www.oregon.gov/bcd/laws-rules/Pages/proposed-rules.aspx>.

FISCAL AND ECONOMIC IMPACT:

The division has determined that the adopted code will have some fiscal and economic impact on state agencies, units of local government, small businesses, and members of the public from the purchase of the 2020 edition of the NEC code book and training associated with new code provisions. The cost of the code book is approximately \$100. The division licenses approximately 3,616 electrical contractors, 21,520 electrical installers, and 950 electrical inspectors. Many of these electrical businesses are small businesses impacted by changes to the OESC. The NFPA makes the NEC code book available online at no cost so the overall impact of this cost cannot be determined at this time. It is unknown how many copies of the code book will be purchased. Likewise it is unknown what the associated costs for attending training will be. The division will offer low cost training for certified individuals.

The 2021 Electrical Specialty Code Review Committee discussed the fiscal and economic impact of each code change. Based on the information provided by the code review committee, the division has determined that state agencies, units of local government, and members of the public who review plans, inspect, design, construct, remodel, alter, or repair buildings and other structures will see some cost increases. Some of the expected cost increases may be offset by certain cost savings as a result of other proposed code changes. Below are the substantive changes with fiscal impacts:

- Expanded GFCI (ground fault circuit interrupter) protection of receptacles in laundry areas. Estimated cost for the increased labor and materials is approximately \$50 per dwelling.
- Expanded GFCI protection of receptacles to bathtubs and shower stalls. Estimated cost for the increased labor and materials is approximately \$50 per dwelling.
- New requirement of GFCI protection of maintenance receptacles required by 210.63, with an exception for receptacles installed indoors in dwelling units. Estimated cost for the increased labor and materials is approximately \$50 per dwelling.
- New amendment requiring GFCI protection for 125-volt through 250-volt receptacles supplied by single-phase branch circuits rated 150-volts or less to ground intended to supply mobile concession stands. Estimated cost for the

increased labor and materials is approximately \$200 per stand.

The Electrical and Elevator Board and the Residential and Manufactured Structures Board made the specific finding that the added cost is necessary for the health and safety of the occupants and the public, or is necessary to conserve scarce resources.

This fiscal impact takes into consideration the requirements specified in ORS 183.534 and OAR 813-025-0015 regarding housing cost impacts for single family dwellings. The overall cost increase for labor and materials for proposed code changes related to low-rise residential electrical provisions in the proposed 2021 Oregon Residential Specialty Code is approximately \$0.

COST OF COMPLIANCE:

(1) Identify any state agencies, units of local government, and members of the public likely to be economically affected by the rule(s). (2) Effect on Small Businesses: (a) Estimate the number and type of small businesses subject to the rule(s); (b) Describe the expected reporting, recordkeeping and administrative activities and cost required to comply with the rule(s); (c) Estimate the cost of professional services, equipment supplies, labor and increased administration required to comply with the rule(s).

Impact on state agencies, units of local government and the public (ORS 183.335(2)(b)(E)):

The division has determined that these proposed rules will have some fiscal impact to the division, local building departments, licensees, and small businesses for training costs and the purchase costs of new code books. The estimated cost for new code books from the publisher is approximately \$100. The division will offer low cost training for local government, but local governments may still see an impact in staff time. It is also estimated that there will be slight to moderate cost increases for members of the public, approximately \$100, as a result of new low-rise residential electrical code provisions. Other possible fiscal impacts are detailed above. The division is unable to determine the exact fiscal impact at this time because it is dependent upon specific factors related to a building's design, use, materials, etc.

2. Cost of compliance effect on small business (ORS 183.336):

a. Estimate the number of small businesses and types of business and industries with small businesses subject to the rule:

The overall goal of reducing Oregon-specific amendments made to the national model code may result in cost savings to contractors, installers, and manufacturers. There are approximately 3,616 electrical contractors, 21,520 electrical installers, and 950 electrical inspectors registered in Oregon. It is unknown how many of these contractors meet the definition of small business. Other possible fiscal impacts are detailed above. The division is unable to determine the exact fiscal impact at this time because it is dependent upon specific factors related to a building's design, use, materials, etc.

b. Projected reporting, recordkeeping and other administrative activities required for compliance, including costs of professional services:

The proposed rules do not impose any additional reporting, recordkeeping, or other administrative activities in order to comply.

c. Equipment, supplies, labor and increased administration required for compliance:

There may be a minimal additional cost associated with new equipment or design parameters. Actual cost cannot be determined at this time due to variables in types of construction, equipment, building type, etc.

DESCRIBE HOW SMALL BUSINESSES WERE INVOLVED IN THE DEVELOPMENT OF THESE RULE(S):

Small businesses were represented on the 2021 Oregon Electrical Specialty Code Review Committee, the Electrical and

Elevator Board, and the Residential and Manufactured Structures Board. The committee and both of the boards reviewed the appropriate provisions of these proposed rules.

WAS AN ADMINISTRATIVE RULE ADVISORY COMMITTEE CONSULTED? YES

HOUSING IMPACT STATEMENT:

No known impact on housing.

RULES PROPOSED:

918-305-0005, 918-305-0100, 918-305-0105, 918-306-0005

AMEND: 918-305-0005

RULE SUMMARY: Adjusts date of withdrawal of electrical interpretations.

CHANGES TO RULE:

918-305-0005

Interpretations ¶

All electrical interpretations dated prior to ~~October~~April 1, 2021~~17~~, issued by the Building Codes Division are withdrawn.

Statutory/Other Authority: ORS 479.730, ORS 455.020, ORS 455.110, ORS 479.680

Statutes/Other Implemented: ORS 479.730, ORS 455.610

AMEND: 918-305-0100

RULE SUMMARY: Changes year of the new electrical code from 2017 to 2021.

Changes code effective date from October 1, 2017 to April 1, 2021.

Changes edition of NEC and NFPA 70 from 2017 to 2020.

CHANGES TO RULE:

918-305-0100

Adoption of Oregon Electrical Specialty Code ¶¶

(1) The Oregon Electrical Specialty Code is adopted pursuant to OAR chapter 918, Division 8.¶¶

(2) Effective ~~October~~ April 1, 2021, the 2021 Oregon Electrical Specialty Code consists of the following:¶¶

(a) 2017~~20~~ Edition of the NFPA 70, National Electrical Code (NEC), and as further amended by the division in OAR 918-305-0105 Table 1-E;¶¶

(b) 2017 Edition of the IEEE C2-2017, National Electrical Safety Code (NESC); and¶¶

(c) The electrical provisions of the Oregon Elevator Specialty Code adopted in OAR 918-400-0455.¶¶

(3) In the event of a conflict between the NEC and NESC requirements, the NEC requirement, as amended in subsection (2) of this rule, applies.¶¶

(4) As used in this rule:¶¶

(a) "ANSI" is the American National Standards Institute;¶¶

(b) "ASME" is the American Society of Mechanical Engineers;¶¶

(c) "IEEE" is the Institute of Electrical and Electronics Engineers; and¶¶

(d) "NFPA" is the National Fire Protection Association.¶¶

¶¶

¶¶

[Publications: Publications referenced are available from the agency.]

Statutory/Other Authority: ORS 479.730, ORS 455.020, ORS 455.030, ORS 455.110, ORS 479.680

Statutes/Other Implemented: ORS 479.730, ORS 455.610

AMEND: 918-305-0105

RULE SUMMARY: Deletes from the rule the amendments that were made to the Oregon Electrical Specialty Code during the 2017 code cycle.

CHANGES TO RULE:

918-305-0105

Amendments to the Oregon Electrical Specialty Code ¶

~~(1) The Oregon Electrical Specialty Code is amended pursuant to OAR chapter 918, division 8. Amendments adopted during the code-cycle for inclusion into the Oregon Electrical Specialty Code are placed in this rule, showing the section reference and a descriptive caption. Amendments to the Oregon Electrical Specialty Code are printed in their entirety in Table 1-E. ¶~~

~~(2) Effective October 1, 2020, the Oregon Electrical Specialty Code Section 250.53(A)(2) is am[Publications: Publications referenced to not require a supplemental electrode in certain temporary electrical service installations.¶~~

~~(3) Effective October 1, 2020, the Oregon Electrical Specialty Code Section 517.13(A) is amended for allowance of additional wiring methods in certain type B occupancies.¶~~

~~(4) Effective October 1, 2020, the Oregon Electrical Specialty Code Section 700.3(F) is amended for allowance of building owner discretion in the requirement of temporary power sources for alternate source of power maintenance or repair.¶~~

~~[Publications: Publications referenced are available from the agency are available for review at the division. See division website for information on where to purchase publications.]¶~~

[NOTE: Table referenced is not included in rule text.]

Statutory/Other Authority: ORS 479.730, ORS 455.110, ORS 455.030, ORS 455.020, ORS 479.680

Statutes/Other Implemented: ORS 479.730, 455.110, 455.030, ORS 455.02610

AMEND: 918-306-0005

RULE SUMMARY: Changes date of NFPA standards list from October 1, 2017 to April 1, 2021.

Changes date of UL standards list from October 1, 2017 to April 1, 2021.

CHANGES TO RULE:

918-306-0005

Standards for Product Evaluations ¶¶

The following standards shall be adopted for use when completing product evaluation:¶¶

(1) NFPA standards on list dated ~~October~~April 1, 2021~~7~~, maintained by the division titled "NFPA Standards";
and¶¶

(2) UL standards on list dated ~~October~~April 1, 2021~~7~~, maintained by the division titled "UL Standards."

Statutory/Other Authority: ORS 479.730, ORS 455.020, ORS 455.030, ORS 455.110, ORS 479.680

Statutes/Other Implemented: ORS 479.730, ORS 455.610