



# Code Amendment Proposal Application

Department of Consumer & Business Services

Building Codes Division

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**Read the entire code amendment proposal application before completing this form. Please complete all parts before submitting your proposal and refer to the provided checklist.**

## APPLICANT INFORMATION

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Date: 8/26/22

Representing (if applicable): Northwest Energy Efficiency Alliance

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## PROPOSAL INFORMATION

Specialty code: ORSC

Code section(s): Table N1101.1(2), Table N1101.3

Briefly explain the subject of your proposal: updates heat pump HSPF/SEER values for the new HSPF2/SEER2 metrics

## INSTRUCTIONS AND CHECKLIST

Fill in all the information above and submit this page, signed and dated, with the required supplementary information for Parts I, II, III, and IV described on page 2 of this application. This application may be submitted by mail to the mailing address above, or by email to [BCD.PTSPtech@oregon.gov](mailto:BCD.PTSPtech@oregon.gov).

### Summary checklist for the applicant:

- Part I** Code amendment language is attached in the proper format.
- Part II** Amendment proposal requirements for amending the code have been reviewed.
- Part III** Amendment proposal criteria questions have been answered and are attached.
- Part IV** If applicable, additional ORSC energy efficiency amendment proposal information is attached.

**Note:** One application is required for each code section you are proposing to amend. If this proposal requires changes in other sections of the code for alignment, include those changes as part of this application.

## APPLICANT SIGNATURE

Signature:

Date: 8/28/22

**Copyright notice:** By signing this Code Amendment Proposal Application, I understand and acknowledge that the work contained in this application is original, or if not original, I have the right to copy the work. By signing this work, I understand that any rights I may have in this work, including any form of derivative works and compilations, are assigned to the Department of Consumer and Business Services Building Codes Division. I also understand that I do not retain or acquire any rights once this work is used in a Department of Consumer and Business Services Building Codes Division publication.

**PART I – CODE AMENDMENT LANGUAGE**

**TABLE N1101.1(2)  
ADDITIONAL MEASURES**

1	<p><b>HIGH EFFICIENCY HVAC SYSTEM<sup>a</sup></b></p> <p>a. Gas-fired furnace or boiler AFUE 94 percent, or</p> <p>b. Air source heat pump HSPF 10.0/<del>14.0</del> <u>15.0</u> SEER cooling <u>or 8.5 HSPF2/16.0 SEER2</u>, or</p> <p>c. Ground source heat pump COP 3.5 or Energy Star rated</p>
5	<p><b>DUCTLESS HEAT PUMP</b></p> <p>For dwelling units with all-electric heat provide:</p> <p><u>i.</u> Ductless heat pump of minimum HSPF 10.0 <u>or HSPF2 9.0</u> in primary zone replaces zonal electric heat sources, and</p> <p><u>ii.</u> Programmable thermostat for all heaters in bedrooms</p>

[note: remainder of table unchanged]

**TABLE N1101.3  
SMALL ADDITION ADDITIONAL MEASURES (select one)**

7.	Replace existing electric radiant space heaters with a ductless mini split system with a minimum HSPF of 10.0 <u>or HSPF2 of <del>xx</del>9.0</u> .
8.	Replace existing electric forced air furnace with an air source heat pump with a minimum HSPF of 9.5 <u>or HSPF2 of <del>xx</del>8.1</u> .

[note: remainder of table unchanged]

**PART II – CODE AMENDMENT PROPOSAL REQUIREMENTS**

This proposal is enforceable by ORSC.

**Part III – CODE AMENDMENT PROPOSAL CRITERIA**

**Proposal**

Question	Response
1. Describe the concept and purpose of this proposal.	This proposal provides clarity on which heat pumps will qualify for the Additional Measures by providing equivalent HSPF2 and SEER2 values.
2. What problem in the existing Oregon code or national model code is this	A change to the test procedure for the federal standard relevant to heat pumps goes into effect on 1/1/23 and introduces new efficiency metrics: HSPF2, SEER2, and EER2. The 2023 ORSC draft includes HSPF

<p>proposal solving? How does this amendment address the issue? If you have evidence demonstrating the problem, submit that information.</p>	<p>and SEER values, so clarifying equivalent HSPF2 and SEER2 values within the code will avoid confusion for both code users and enforcers. In the absence of an authoritative source for converting HSPF/SEER ratings for current products, NEEA leveraged the August 4, 2022 draft proposal on this topic from the Consortium for Energy Efficiency (CEE see attached). The <i>Table 2. M to M1 Appendix Crosswalk</i> has been reproduced here for convenience; to use, multiply a product's SEER, EER, or HSPF by the number indicated:</p> <table border="1" data-bbox="656 478 1414 726"> <thead> <tr> <th></th> <th>SEER2</th> <th>EER2</th> <th>HSPF2</th> </tr> </thead> <tbody> <tr> <td><b>Ducted</b></td> <td>0.95</td> <td>0.95</td> <td>0.85</td> </tr> <tr> <td><b>Non-Ducted</b></td> <td>1.00</td> <td>1.00</td> <td>0.90</td> </tr> <tr> <td><b>Packaged</b></td> <td>0.95</td> <td>0.95</td> <td>0.84</td> </tr> </tbody> </table> <p>This crosswalk was used to calculate all the HSPF2 values in this proposal. For the one SEER2 value, NEEA adjusted this figure to align with industry (see the next section on REPI-136).</p>		SEER2	EER2	HSPF2	<b>Ducted</b>	0.95	0.95	0.85	<b>Non-Ducted</b>	1.00	1.00	0.90	<b>Packaged</b>	0.95	0.95	0.84
	SEER2	EER2	HSPF2														
<b>Ducted</b>	0.95	0.95	0.85														
<b>Non-Ducted</b>	1.00	1.00	0.90														
<b>Packaged</b>	0.95	0.95	0.84														
<p>3. Has this been proposed at the national model code level? If so, explain when it was proposed, what happened, and why it was not adopted. Provide all associated national model code hearing information and background.</p>	<p>A code change proposal for 2024 IECC, REPI-136-21 would expand the IECC's HVAC Additional Efficiency Package option into centrally ducted and ductless categories with different requirements. REPI-136's proposed HSPF2 and SEER2 values of 8.5 and 16.0 for centrally ducted heat pumps are mirrored in this ORSC proposal. For ductless heat pumps, the 9.0 HSPF2 value in this ORSC proposal differs from the REPI-136 value of 8.5; however, this ORSC proposal does not specify REPI-136's 16.9 SEER2 requirement. <a href="#">REPI-136 As Modified</a> was voted for approval by the IECC-R Committee by a 34-9 margin.</p>																

### Implementation and fiscal impact

Question	Response
<p>1. Explain how the proposed provisions would be enforced? Are additional inspections or permits required? Describe any necessary equipment, training, tests or special certifications.</p>	<p>Clarifying this item within the code itself simplifies enforcement by reducing time spent fielding inquiries, reviewing bulletins, and seeking interpretations.</p>
<p>2. What is the fiscal impact of this proposal? Provide a cost benefit analysis and include the resources or methods you used to determine the fiscal impact.</p>	<p>There is no fiscal impact to builders since the proposal seeks to provide equivalent HSPF2 and SEER2 ratings for the existing HSPF/SEER values, and the HSPF/SEER values are retained as compliance options.</p>

### Impacted stakeholders and other specialty codes

Question	Response
<p>1. Was this proposal developed with people or organizations likely to be affected by it? Has it been reviewed or</p>	<p>In developing and gaining approval for REPI-136 at the national level, the proponent (Daikin) worked across the HVAC industry to secure support for the values.</p>

shared with people or organizations likely to be affected by it? If so, who, and if not, why not?	Likewise, CEE’s crosswalk was developed by its Residential Heating and Cooling Systems Initiative, a binational (USA & Canada) collaboration of energy industry stakeholders. Further stakeholder discussion is desirable as additional information emerges about how to convert HSPF/SEER/EER to HSPF2/SEER2/EER2.
2. Does this proposal impact other specialty codes or statewide programs?	No.

**Part IV – ORSC ENERGY EFFICIENCY CODE AMENDMENT PROPOSAL CRITERIA**

This proposal updates metrics in the current ORSC in step with regulatory changes and does not seek to change what is required to achieve the Additional Measure options which cite these metrics. Furthermore, the original HSPF and SEER are retained, which means the HSPF2 and SEER2 values proposed here are technically alternative compliance options – and a new compliance path can only *reduce* the cost of compliance. Thus, no energy or construction cost analysis is needed.

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