Code Amendment Proposal Application

Department of Consumer and 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		
Name: Dan Kirschner		Date: 9-5-2025
Representing: (If applicable) NW Gas Association		Work phone:
Mailing address: 1914 Willamette Falls Drive, Suite 260		Cell phone: (503) 880-7269
City: West Linn	State: OR	ZIP: 97078
Email address: dkirschner@nwga.org		

PROPOSAL INFORMATION	
Specialty code:	Oregon Residential Specialty Code, Chapter 11
Code section(s):	N1105.8
Briefly explain the subject of your proposal:	See attached

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.

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

ELECTRONIC SIGNATURE: DAN KIRSCHNER	9-5-2025
Signature:	Date:

Strike N1105.8. Heat Pump

~~**N1105.8 Heat pump.** In new *dwellings* where split-system air-conditioning is installed, the outdoor condensing unit and indoor evaporator coil shall have heat pump operation that provides both heating and cooling~~

TABLE N1110.5.2(1) SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS

Building Component	Standard Reference Design	Proposed Design
Heating Systems	Fuel Type/Capacity: same as proposed design. ~~Where cooling is provided, first stage of heating shall comply with Section N1105.8 Heat Pump. Swap over temperature shall be 35F~~	As Proposed
	Product class: same as proposed design	As Proposed
	Efficiencies:	
	Heat pump: complying with 10 CFR §430.32	As Proposed
	Fuel gas and liquid fuel furnaces: ~~complying with 10 CFR §430.32~~ **same as proposed design**	As Proposed
	Fuel gas and liquid fuel boilers: complying with 10 CFR §430.32	As Proposed

Reason: The reason we are proposing to strike the language in N1105.8 is that the language would eliminate the option to install straight air conditioning (“AC”) units and unnecessarily increase the overall cost of construction, particularly given the increasing amount of dwellings where AC is included. Heat pumps installed with electric resistance supplemental heat have been demonstrated to increase the load on the electric grid and total energy use.

Removing this requirement will avoid unnecessary costs and resource adequacy concerns by uncoupling the requirement for a heat pump when AC is installed.

New construction

- **Initial Installation Cost – HPs cost significantly more than AC units to install, leading to equity issues.** For example, a 3 ton Goodman AC condensing unit with code-minimum efficiency of a 14.3 SEER2 (model GLXS4BA3610) costs $2,309 online; a similar efficiency and capacity Goodman HP costs $3,095 (model GLZS4BA3610) a higher cost of $786 or 34%. But the situation is more complex – a 3 ton heat pump will not provide much heating capacity at design temperature (25 MBH in Portland at 29F; 19 MBH in Bend at 12 F) leading to increased use of costly electric resistance heat. A 4 ton heat pump (GLZS4BA4810) providing 33 MBH in Portland lists at $3,661 which is $1,352 or 59% more than an AC unit. A 5 ton heat pump (GLZS4BA6010) providing 30 MBH in Bend lists at $4,285 which is $1,976 or 86% more than an AC unit. (Source: HVACDirect.com, Goodman.com). Additional cost is concerning given our region's housing shortage and equitability needs.
- **Homeowner Financial Burden** – Our analysis shows that HPs cost more to operate than gas furnaces for heating, driving up the cost of ownership, compounding equity issues. For example, a 95% AFUE furnace is estimated to cost about $630 for space heating over the course of the heating season while a 9.5 HSPF (8.5 HSPF2) HP is estimated to cost about $790 (using nwncompare.com for a newer 2,138 square foot, detached single family home with a crawlspace foundation, central ducted heating system in Portland, OR – with a blend of PGE and PAC electricity rates per kWh.) [Energy cost reference: https://www.aga.org/news/news-releases/doe-announces-natural-gas-affordability-jumps-to-3-5-times-more-affordable-than-electricity; Heat pump cost effectiveness reference: https://nwcouncil.app.box.com/v/ResSFMHConvCDHP-8-1]
- **Emissions** – Using the ASHRAE Standard 105 methodology for avoided emissions, with the latest eGRID emissions data for generation sources in our region, we're finding that emissions from heat pumps exceed those from furnaces with comparable capabilities – even when assuming HPs are performing at nameplate efficiency. Natural gas consumption in Oregon is on the rise in the electricity generation sector (U.S. Energy Information Administration, May 2025, https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_SOR_a.htm).
- **Performance** – Field data indicate that HPs perform below nameplate / laboratory efficiency, compounding both the cost of ownership and emissions concerns. (https://www.energytrust.org/wp-content/uploads/2021/09/Summary-Memo-of-Recurve-Ducted-Heat-Pump-Upgrade-Impacts-Final.pdf; see similar comment

below. RTF presentation by David Boop, “Air Source Heat Pump Measures” https://rtf.nwcouncil.org/calendar/rtf-meeting-2025-03-18/)

- **Resource Adequacy** – local energy providers are very concerned about the state of our electrical grid and capacity to manage demand increases. The Pacific Northwest Utilities Conference Committee (PNUCC) published a recent report noting vulnerabilities like blackouts (https://www.pnucc.org/wp-content/uploads/Guidehouse-analysis-of-regional-energy-reports-2025.pdf). Mandating heat pumps where cooling is provided will add all-electric heating systems to the grid, along with electric resistance auxiliary heat that will operate during peak heating load periods, increasing grid vulnerability.

Amendment proposal criteria questions

1. Describe the concept and purpose of this proposal. **The purpose is to strike the requirement to install heat pumps in new construction when air conditioning is installed, instead of a straight air conditioning unit.**

2. What problem in the existing Oregon code or national model code is this proposal solving? How does this amendment address the issue? **There is currently no requirement like this in the national code for residential dwelling units; this proposal seeks to align with model codes and avoid unnecessary added costs to new construction and resource adequacy concerns.** If you have evidence demonstrating the problem, submit that information. **See above comments.**

Helpful information

a) If this proposal corrects any unforeseen or probable outcomes resulting from the application of a code section, explain how. **This proposal would avoid the unnecessary added cost of installing a heat pump in new construction along with resource adequacy concerns.**
b) If this proposal corrects inadequate application by a code section to a method, material, or design, explain how. **N/A**
c) If this proposal eliminates conflicting, obsolete, or duplicative code provisions or standards between Oregon adopted codes, statutes, or regulations, explain why. **N/A**
d) If this proposal is for a fire or life safety matter, or is otherwise needed to protect the health, safety, welfare, comfort, and security of occupants and the public, explain why. **N/A**
e) If this proposal is necessary to address unique geographic or climatic conditions within Oregon, explain why. **N/A**
f) If there are alternatives to this proposal that solve the problem, explain why this proposal is the best or a necessary solution. **N/A**
g) If this proposal provides for the use of unique or emerging technologies, or promotes advances in construction methods, devices, materials, and techniques, explain how. **N/A**

h) If this proposal meets any energy conservation or indoor air quality requirements, explain how. **N/A**
i) If this proposal involves the adoption of an electrical or plumbing building product, note if the appropriate advisory board approved the product. **N/A**
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. **Requirements to install heat pumps have been proposed at the national level (ASHRAE), but these have not been adopted into the residential model codes (IECC) and Oregon traditionally mirrors model codes.**

Implementation and fiscal impact

1. Explain how the proposed provisions would be enforced? Are additional inspections or permits required? Describe any necessary equipment, training, tests or special certifications. **The proposal to strike the heat pump requirement would keep enforcement and inspections as they are today, and not require any new equipment, certification or testing.**

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. **This will prevent the increased cost of new construction.**
Helpful information
a) If this proposal adds to the cost of construction, explain how the added cost contributes to the health and safety of occupants, or is necessary to conserve scarce resources. **This would prevent the increased cost of construction.**
b) If there are any other adverse fiscal impacts or cost savings passed on to the general public, the construction industry, local and state governments, and small businesses, an interested person must describe the added or reduced cost of a proposed code amendment, and describe the adverse fiscal impact or cost savings in relation to the current Oregon specialty code. **N/A**
c) If this proposal will affect the cost of development of a detached single-family dwelling, please indicate the cost. For the purposes of illustrating the change on the cost, please use a 6,000-squarefoot parcel and the construction of a 1,200-square-foot, detached single-family dwelling on that parcel. The information on the cost must be sufficient to help the division in preparing a housing cost impact statement. **This will keep the cost of development from increasing as noted above.**

Impacted stakeholders and other specialty codes

1. If this proposal will affect the cost of development of a detached single-family dwelling, please indicate the cost. **As noted above, the BCD proposal – if not struck – would increase the cost of development of a detached single-family dwelling.**
For the purposes of illustrating the change on the cost, please use a 6,000-square-foot parcel and the construction of a 1,200-square-foot, detached single-family dwelling on that

parcel. The information on the cost must be sufficient to help the division in preparing a housing cost impact statement.
2. Does this proposal impact other specialty codes or statewide programs? **No.**