

Montana & Idaho Specifications for BPA Income Qualified Single Family New Construction Energy Conservation

All building components not listed here shall otherwise comply with the currently effective state energy code. Updated June 2026

1) Incorporate all upgrades in every home from Table 1

Table 1.

Slab on-grade construction type	R-10 insulation at perimeter for entire depth of slab and under entire slab area
Floor over unconditioned space type	R-38
Ceilings	U-Factor 0.017 or lower

2) Select Qualifying Heating and Cooling Equipment in Table 2

Heating and cooling equipment shall be a heat pump that is either centrally zoned, ducted distribution, individually zoned, or ductless distribution. Select one of the two options and meet the requirements shown in Table 2.

Table 2. Heating and Cooling Equipment Specifications

	Option 1: Heat Pump, Central Ducted	Option 2: Heat Pump, Zonal Ductless	Option 3: Electric Resistance, Zonal or Ducted
Efficiency	Heat Pump with HSPF2 ≥ 9.4	Heat Pump with HSPF2 ≥ 9.0	<i>Not applicable</i>
Size	Heat pump shall be sized to meet the dwelling heating load at 20 °F or at the 99.6% design outdoor temperature , whichever is warmer. Sizing calculations shall be conducted in accordance with ACCA Manual S or similar.		<i>Not applicable</i>
Ducts	<i>Not applicable</i>	For ducted units, ducts and air handling equipment shall be located completely inside the building's thermal envelope per "R403.3.2 Ducts Located in Conditioned Space" of the International Energy Conservation Code 2021.	

3) Select Qualifying Efficiency Package in Table 3

Select one of the efficiency packages shown in Table 3. See all specification footnotes at the bottom of the page.

Table 3. Efficiency Packages

	Heat Pumps Only				Electric Resistance Only
	Package A	Package B	Package C	Package D	Package E
Exterior Walls	U-Factor 0.045			U-Factor 0.045	U-Factor 0.045
Windows	U-Factor 0.21			U-Factor 0.21	U-Factor 0.21
Air Sealing		2.5 ACH 50Pa ^{AA}		2.5 ACH 50Pa ^{AA}	2.5 ACH 50Pa ^{AA}
Mechanical Ventilation		75% HRV ^{BB} 1.6 cfm/W ^{CC}		75% HRV ^{BB} 1.6 cfm/W ^{CC}	75% HRV ^{BB} 1.6 cfm/W ^{CC}
Water Heating			Heat Pump Water Heater, Tier 4 ^{DD}	Heat Pump Water Heater, Tier 4 ^{DD}	Heat Pump Water Heater, Tier 4 ^{DD}

Table 3. Footnotes

AA	Air Sealing	<i>The building shall have a maximum air leakage rate of 2.5 air changes per hour at 50 Pascals (2.5 ACH 50Pa) tested in accordance with R402.4.1.2 of the 2021 International Energy Conservation Code.</i>
BB	Mechanical Ventilation	<i>Dwelling units shall be provided with a heat or energy recovery ventilator (HRV) with a minimum sensible heat recovery efficiency of 75% at 32° F at a flow greater than or equal to the design airflow.</i>
CC	Mechanical Ventilation	<i>Fan efficacy for the HRV shall be minimum 1.6 cfm/W in accordance with section R403.6.2 of the 2021 International Energy Conservation Code</i>
DD	Water Heating	<i>Water heater shall be a heat pump water heater at the Tier 4 level, or higher, on the Advanced Water Heating Specification Qualified Products List:</i> https://www.bpa.gov/-/media/Aep/energy-efficiency/document-library/HPWH_Qualified_Product_List.pdf