

NATIONAL ENERGY CODE 2023 Prescriptive checklist for residential and limited small commercial projects

ABC Section 9.36 Energy Efficiency applies to a limited range of Part 9 occupancies. The **PRESCRIPTIVE PATH** applies to **(a)** buildings of residential C occupancy, **(b)** buildings containing D, E or F3 occupancies whose combined floor area does not exceed 300 m² & **(c)** any mix of occupancies described in (a) and (b) that results in a Part 9 building, i.e.: not exceeding 600 m² or 3 storeys. *The **PERFORMANCE PATH** may be applied ONLY to houses with or without a secondary suite, and part 9 residential buildings with common space floor area ≤ 20% floor area of the building; Contact an energy consultant. Any building may be constructed per **NEBC**.*

PRESCRIPTIVE PATH	*EFFECTIVE RSI/R VALUES
Complete the three following tables (1) – (3) listing building characteristics for your project to demonstrate compliance with the solutions prescribed in 3.2 NECB 2023	Typical Effective RSI 2.97/ R17 wall construction: <i>Siding/house wrap/ sheathing/2X6 framing 24" on center RSI 3.87/R22 insulation/poly/1/2" drywall.</i>

(1) Check applicable proposed construction; MINIMUM prescriptive Effective Thermal Resistance "ETR" for roofs/walls/floors Zone 7A

BUILDING ENVELOPE	WITH Heat Recovery Ventilator "HRV"			WITHOUT Heat Recovery Ventilator "HRV"				
ABOVE-GROUND ASSEMBLIES	MINIMUM "ETR" (m ² K/W) (RSI/R)			MINIMUM "ETR" (m ² K/W) (RSI)/R				
Ceiling below attic	8.67/ 50	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>	10.43/ 60	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>
Cathedral ceiling -OR- flat roof	5.02/ 28	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>	5.02/ 28	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>
Wall, AND foundation exposure average > 600mm	2.97/ 17	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>	3.08/ 17.5	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>
Floor over unheated space	5.02/ 28	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>	5.02/ 28	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>
Tall wall	2.97/ 17	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>	3.08/ 17.5	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>
"ETR" reduction of 0.16 at protected area interface		N/A <input type="checkbox"/>	NO <input type="checkbox"/>	YES <input type="checkbox"/>		N/A <input type="checkbox"/>	NO <input type="checkbox"/>	YES <input type="checkbox"/>
BELOW-GRADE or GROUND CONTACT ASSEMBLIES								
Wall, AND foundation exposure average up to 600mm	2.98/ 17	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>	3.46/ 20	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>
Unheated floor – below frost line	0	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>		0	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	
Unheated floor – above frost line	1.96/ 11	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>	1.96/ 11	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>
Heated floor – see 19 BCV-005 RSI0.88/R-5 <input type="checkbox"/>	2.84/ 16	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>	2.84/ 16	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>
Slab-on-ground with integral footing	2.84/ 16	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>	3.72/ 21	N/A <input type="checkbox"/>	equal or better <input type="checkbox"/>	less <input type="checkbox"/>
→ HRV conforms? CAN/CSA-C439, "Rating the Performance of Heat/Energy-Recovery Ventilators" sensible HR efficiency ≥60%@0oC & ≥55%@-25oC				YES <input type="checkbox"/>				

If any proposed "ETR" value is less than the minimum value in the chosen column: use **TRADE-OFF** calculations -OR- **PERFORMANCE** path.

(2) Check applicable proposed construction; MAXIMUM prescriptive overall thermal transmittance "U-values" for windows/doors Zone 7A

WINDOW & DOOR COMPONENTS	MAXIMUM "U" value (W/m ² K)				
Windows max U _{SI}	1.60	N/A <input type="checkbox"/>	equal or less <input type="checkbox"/>	exceeds <input type="checkbox"/>	9.36.2.7.A alternative: min ER=25
Exterior doors max U _{SI}	1.60	N/A <input type="checkbox"/>	equal or less <input type="checkbox"/>	exceeds <input type="checkbox"/>	9.36.2.7.A
Single exterior door exception max U _{SI}	2.60	N/A <input type="checkbox"/>	equal or less <input type="checkbox"/>	exceeds <input type="checkbox"/>	9.36.2.7.(5), NOTE on plans
Glass block; max area: 1.85 m ² max U _{SI}	2.90	N/A <input type="checkbox"/>	equal or less <input type="checkbox"/>	exceeds <input type="checkbox"/>	9.36.2.7.(4), NOTE on plans
Skylights max U _{SI}	2.70	N/A <input type="checkbox"/>	equal or less <input type="checkbox"/>	exceeds <input type="checkbox"/>	9.36.2.6.(4), include shaft ETR/detail
Attic/access hatches min nom RSI = 2.6/R15	YES <input type="checkbox"/>	N/A <input type="checkbox"/>			9.36.2.7.(8), NOTE on plans
Garage overhead doors min nom RSI = 1.1/R6	YES <input type="checkbox"/>	N/A <input type="checkbox"/>			9.36.2.7.(7), NOTE on plans

If any proposed window, door or skylight exceeds maximum values listed, attach **TRADE-OFF** calculations -OR- use **PERFORMANCE** path.

(3) HVAC/HOT WATER COMPONENTS - Check if applicable [See GUIDE for options]

COMPONENT/EQUIPMENT	HEATING/COOLING CAPACITY	STANDARD	MIN PERFORMANCE	
Gas-fired forced air furnace	<65.9kW [222,000Btu/h]	CAN/CSA-P.2	≥AFUE 92%	YES <input type="checkbox"/> NO <input type="checkbox"/>
Gas-fired hot water tank	<22kW [75,000Btu/h]	CAN/CSA-P.3	EF ≥0 .67-.0005V	YES <input type="checkbox"/> NO <input type="checkbox"/>
Minimum 12mm thick pipe insulation to be installed for minimum first 2m of piping from inlet and outlet of water heater. All continuous-operating recirculating service water heating system piping shall be covered with minimum 12mm pipe insulation [9.36.4.4.]				YES <input type="checkbox"/> NO <input type="checkbox"/>
Discharge ducts have motorized damper, or gravity/spring-operated backflow damper installed Intake duct has "fail-open" motorized damper--EXCEPT where disallowed by other regulation or where system operates continuously [9.36.3.3.]				YES <input type="checkbox"/> NO <input type="checkbox"/>