

2020 NATIONAL BUILDING CODE ENERGY COMPLIANCE PATHWAYS

The 2020 NBC Section 9.36 introduces three compliance options for energy efficiency in housing and small buildings. Each pathway ensures energy performance equivalent to or exceeding Tier 2 of the Tiered Energy Performance requirements.

Building Address: _____

Owner/Applicant: _____

Date: _____

Pathway Selected:

- Tiered Prescriptive
- Tiered Performance
- National Energy Code

Summary Table

Pathway	Best For	Key Requirements	Verification Method
Tiered Prescriptive	Simple low-rise housing	10 points minimum	Field inspection & test results
Tiered Performance	Custom builds	Energy modeling	Software report
NECB 2020	Larger or mixed-use buildings	NECB standards	Compliance checklist

Pathway 1: Tiered Prescriptive Compliance (Tier 2 – 10 Points Minimum)

Method: Achieve 10 points through performance upgrades that increase overall building efficiency.

How to Earn Points (Tier 2 Examples):

Upgrade Measure	Description	Points Available	Points Achieved
Increased insulation in wall assembly	Exceeds minimum RSI value of Tier 1	13.6	
Decrease in window U-value / increase in ER rating	Better-performing windows/doors	4.6	
Improved HRV efficiency	Sensible Heat-Recovery Efficiency $\geq 60\%$	3.5	
Gas-fired or heat pump water heater	Uniform Energy Factor ≥ 0.79 Energy Efficiency ≥ 2.35	4.9	
Air tightness verified by blower door test	≤ 2.0 ACH@50Pa	13.4	
Reduced building volume (heated space)	≤ 390 m ³ (13,772 ft ³)	10	
Total Points	Must be ≥ 10	49.5	

Compliance Documentation Attached: Yes No

Pathway 2: Tiered Performance Compliance (Tier 2 – Energy Modeling)

Method: Energy modeling comparison between a Reference House and the Proposed House. The proposed design must demonstrate equal or better energy performance than the reference model as defined in the NBC 2020.

How It Works:

1. Energy model both reference and proposed house using approved software (e.g., HOT2000, EnergyPlus, etc).
2. Submit modeling summary showing annual energy consumption (MJ/m²) and GHG intensity.
3. Confirm all major systems are modeled accurately (HVAC, service water heating, building envelope, air tightness).

Energy Performance >300m3 Volume	Target Energy Performance Tier 2	Actual Energy Performance	Meets/Exceeds Tier 2 (✓)
% Heat Loss Reduction	≥5%		
% improvement OR % House Energy Target	≥10% ≤ 90%		
Energy Performance ≤300m3 Volume	Target Energy Performance Tier 2	Actual Energy Performance	Meets/Exceeds Tier 2 (✓)
% Heat Loss Reduction	≥ 0%		
% improvement OR % House Energy Target	≥ 0% ≤100%		

Pathway 3: 2020 National Energy Code for Buildings (NECB 2020)

Method: Follow the prescriptive or performance compliance paths under NECB 2020. Typically used for larger or mixed-use buildings beyond Part 9.

Compliance Options:

- Prescriptive: Meet or exceed all NECB minimum insulation, fenestration, and mechanical system efficiencies.
- Trade-Off: Balance over- and under-performance across envelope components.
- Performance: Model proposed design to use less energy than NECB reference model.
- Submit Form 11 – Commitment Certificate: Resource Conservation Measures – Energy Requirements (Field Review of Construction)