

2020 Vermont Residential Building Energy Standards (RBES) Certificate

This certificate is for projects started on or after September 1, 2020.

Before completing this form, refer to the instructions in Chapter 8 of the Residential Energy Code Handbook (5th edition).

For additions, alterations, renovations or repairs, only fill out applicable portions of certificate.

1036 Falls Rd, Shelburne
 Property Address (Street, City, ZIP Code)
 September 2021
 Construction START Date Construction FINISH Date Act 250 (Y/N) Act 250 Permit #
 1 2 2587 3
 # Units # Stories # Conditioned Sq. Ft. # Bedrooms

Applicable Code: Base Stretch
Project Description
 Single family Renovation / alteration *
 Multi-family Addition *
 Log home Repair *

Foundation: Basement Slab On Grade Crawl Space Other: _____

* Existing Home Project Description: _____

Compliance Method
 MUST select Option 1, Option 2, or Option 3
 Option 1: Package-Plus-Points Ref. RBES for full requirements of each point option
 BASE / STRETCH (circle one) Points required: _____ (Base requires 4-10pts / Stretch 6-12pts, Package # _____ Points achieved: _____ see Handbook Tables 5-2 and 5-5)

Option 2: REScheck software (cannot be used for Stretch Code) Passes
 _____ UA result _____ Max. UA

- Envelope: Slab, R-10 under all (1pt)
- Envelope: Walls-Upgraded, R20+12 (2pts)
- Envelope: Walls-High-R, R-40 (3pts)
- Envelope: Ceiling, R-80 flat / 60 sloped (1pt)
- Envelope: Windows 0.27 (1pt, Base only)
- Envelope: Windows 0.22 (2pts)
- Pre-drywall blower door (1pt), result _____
- ENERGY STAR heating and cooling (1pt)
- Advanced heating and cooling (3pts)
- ACH50 ≤ 2.0 and qualifying HRV/ERV (3pts for Base OR 1pt for Stretch)
- ACH50 ≤ 1.0 and qualifying HRV/ERV (4pts)
- ENERGY STAR DHW (1pt)
- ENERGY STAR electric DHW (2pts)
- Low flow fixtures (1pt)
- Drain water heat recovery (1pt)
- User-demand hot water recirculation (1pt)
- Water certification (2pts)
- List cert. type _____
- Solar ready (1pt, Base only)
- On-site generation (1-4pts) _____ kW _____ pts
- Solar hot water (2pts)
- Building energy monitoring (1pt)
- Level 2 EV-ready (1pt)
- 6 kWh battery backup (1pt)
- †See RBES for MF exception

Option 3: HERS/ERI
 44 _____ HERS Result (Overall)
 44 _____ HERS without Renewables
 16.3.1 _____ REM/Rate Version #
 IAF incorporated into model
 Approved Rater Name:
 Li Ling Young, VEIC
 (Maximum HERS: 61 Base, 54 Stretch)

Thermal Envelope

Basement: R-20 Basement / Crawl Space Walls 8 Basement Insulation Depth (ft) U-0.27 Basement Windows NFRC Default
 Slab: R-20 Unheated Slab (Under) R-NA Heated Slab (Under) R-20 Perimeter Slab Edge
 Wall/Ceiling: R-26 Above-Grade Walls R-NA Flat Ceilings NA Area (sq ft) R-52 Sloped Ceilings NA Area (sq ft)
 Other: R-39 Floors over Unheated Spaces R-NA Attic Access Hatch / Door NA
 Fenestration U-0.28 Windows NFRC Default U-0.22 Doors NFRC Default U-NA Skylights NFRC Default

Air Sealing / Blower Door Test

(must report either ACH50 or CFM50/sq ft for Base Code) 203 ACH50 Date of test 9/22/2021
 0.03 CFM50/sq ft of building shell (6 sides) Air Leakage Tester Name:
 Both measurements are required for Stretch Code Li Ling Young, VEIC

Ventilation System

(must select one) Balanced, SRE 65% Flow verification: Rated, OR Measured → 110 Exhaust air flow (total cfm) 112 Supply air flow (total cfm)
 Exhaust-Only Flow verification: Rated, OR Measured → _____ Exhaust air flow (total cfm)

Combustion Safety

(verify all) Exterior (outdoor) air supply is provided for solid fuel-burning appliances and fireplaces, OR NA (no solid fuel burning appliance or fireplace in home)
 Solid fuel burning appliances and fireplaces have gasketed doors with compression closure, OR NA (no solid fuel burning appliance or fireplace in home)
 Spillage testing conducted on combustion equipment not directly-vented, OR NA (no equipment, or all equipment directly-vented)

Mechanical System

(must complete all) Design Load Calculation Method: ACCA Manual J, OR Other Approved Method (List) _____
 Calculation details: (Ref. RBES R302 for design temperature exceptions)
 _____ Winter design temp, outdoor dry-bulb (VT range: -11 to 1°F) _____ Summer design temp, outdoor dry-bulb (typ. max. 84°F), OR No cooling
 _____ Winter design temp, indoor (max 72°F) _____ Summer design temp, indoor (min. 75°F), OR No cooling
 _____ Heating design load, Btu/hr _____ Cooling design load, Btu/hr, OR No cooling
 112k Primary heating system size, Btu/hr 26.2k Primary cooling system size, Btu/hr, OR No cooling
 95 HSPF or COP or AFUE (circle which) _____ SEER or COP (circle which), OR No cooling
 Programmable thermostat, OR Exempt; list reason _____

Ducts

Ducts located completely within conditioned space, OR NA (no ducts)
 _____ Duct airtightness test result (CFM @ 25 Pa)
 Test performed at Rough-in (max 3 CFM per 100 sq ft of cond. floor area), OR Post-construction (max 4 CFM per 100 sq ft of cond. floor area)

Other Requirements

Mandatory (Base and Stretch): Mechanical system piping, min. R-3 Multi-family: EV charging requirement is met: _____ # spaces
 90% of lamps high efficacy Automatic or gravity dampers for vent. system intake and exhaust
 Mandatory (Stretch Code Only): Single-family: Solar ready Single-family: One Level 1 EV-charging space
 Where applicable: Circulating service hot water piping, R-3 Pools: All requirements per R403.10 are met Automatic controls for snow-melt systems

I certify to Scott Gardner (owner) that the above information is correct and that the premises listed have been constructed in accordance with the Vermont Residential Building Standards (RBES) created under 30 V.S.A. § 51. Date: 9/24/21
 Signature: [Signature] Printed Name: ANDREW CHARBONNEAU
 Company: BUILDING ENERGY Phone: 802-862-6545

30 V.S.A. § 51 requires this certificate label to be permanently affixed to the inside electrical service panel or heating or cooling equipment or nearby in a visible location. Copies of the certificate (and Home Energy Rating Certificate if Option 3 is used) also must be provided to 1) the Dept. of Public Service, 112 State St., Montpelier, VT 05602, and 2) the town clerk of the town where the property is located.
 NOTE: Noncompliance with RBES may result in action for damages under 30 V.S.A. § 51. This label does not specify all 2020 RBES requirements. QUESTIONS? CALL the Energy Code Assistance Center at 855-837-6677.