

Read the instructions in their entirety before completing the Vermont RBES Certificate.

Existing Homes

For additions, alterations, renovations and repairs to existing homes, include a brief description of the project under the Existing Home Project Description section of the form and fill out the portions of the form pertaining to your project. For Owner/Builder projects, the Owner/Builder form should be completed (see Figure 8-2).

Instructions for Completing the ‘Vermont Residential Building Energy Standards Certificate’

Read these instructions in their entirety before completing the *Vermont RBES Certificate* for your home. Items are listed in **bold** in the order they appear on the certificate.

1. If the dwelling received an Act 250 Permit, list the **Act 250 Permit #**. If not, check N/A.
2. List the **Property Address**, including the **City** and **Zip code**.
3. List the **Electric Utility** providing electric service to the dwelling. If the dwelling has no electricity, state none. If electricity is provided by a stand-alone system, indicate the system type, such as photovoltaic, wind turbine, propane generator, etc.
4. List the **Construction Start** and **Construction Finish** dates by **Month/Year**. **Construction Start** is when site work began, when the ground was first dug to prepare for a below grade foundation or slab on grade, etc. **Construction Finish** is when the dwelling is sufficiently ready for occupancy.
5. **Project Description**: Check off all that apply. **Multi-family homes**: Write in the number of **Units**. For all Projects, write in the number of **Stories** above grade, and the **Conditioned sq. ft.** area, excluding unconditioned spaces, such as an unconditioned garage or unheated basement. Write in the **Number of Bedrooms**. For Existing Homes Project Description include a brief description of the work done.
6. **Foundation Type**: Check off all that apply.
7. **Thermal Envelope**: Where applicable, list the nominal **R-value** of the insulation. If any component has more than one R-value (e.g., R-38 ceiling and R-49 ceiling), calculate an average R-value and that figure on the form. (See Section 2.5, “How to Calculate Average R-values and U-values.”) For basement walls, list the vertical height of the basement insulation in **Insulation Depth** in feet (ft.).
8. **Doors and Windows**: Where applicable, list the **U-Value**. If the U-value is not an **NFRC** (National Fenestration Rating Council) **Rating**, list the **Default Rating** (refer to Appendix B, Table B-1). **Check rating type** — either **NFRC** or **Default Rating**. Note: If there is not enough space in this section to list each thermal envelope component, list additional information under **Other Energy Features**.
9. **Air Sealing**: Check whether air sealing was verified by visual inspection or blower door testing. If tested, list the envelope air leakage rate.
10. **Ventilation System**: Check whether the ventilation system is “**Exhaust**” or “**Balanced**.” List the **Ventilation Air Flow** rate in cubic feet per minute and check off if the flow rate is either **Rated** or **Tested**.
11. **Mechanical Systems**: Check the system sizing **Calculation Method**. Note the **System Size**, **Design Heat Loss/Gain** and **Efficiency** of the Primary Heating and Cooling System.
12. **Programmable Thermostat**: Check whether a programmable thermostat is installed.
13. **Heat Pump Supplementary Heat Control**: Check whether a control was installed on heat pump supplementary heat.
14. **Duct**: Check if ducts are located within conditioned space. If located in unconditioned space, list insulation R-values for supply and return ducts and their location. List the tested duct leakage rate.
15. **Combustion Safety**: Check if spillage testing was conducted on combustion equipment that is not directly-vented or power vented. Check if fireplaces have gasketed doors with compression closure. Check if exterior air supply requirements have been met for solid fuel-burning appliances and fireplaces.

To order additional certificates, contact one of these resources:

★ Energy Code Assistance Center
1-855-887-0673.

★ Vermont Public Service Department
1-802-828-2811.

16. **Other:** Check all that apply.
17. Under **Code Compliance Path**, check the compliance path by which you determined technical compliance with the Code.
 - ★ If compliance is determined using the REScheck Software Method, list the **REScheck maximum required UA** value and **Your home UA** value calculated by REScheck.
 - ★ If compliance is determined using a home energy rating, list the **Final home energy rating** and the **Company** (Rated by) that determined the final rating score.
18. Under the certification section, list the name of the **owner** of the dwelling.
19. **Signature:** This is the signature of either the builder who directed construction or of another party authorized to certify Code compliance. **Company:** List the business name of the party certifying compliance. **Print** the **Name** of the person whose **Signature** is presented. List the **Phone** number of the **Company** certifying compliance (including area code) and the **Date** (month and year) the certificate is signed and completed.

Section 8.2b

Filing the 'Vermont Residential Building Energy Standards Certificate'

Once the certificate is completed, you need to file the required copies and attach the original to the house:

1. Make at least three copies of the completed certificate, retaining one for your records.
2. Attach the original certificate to the house by permanently affixing it on or near the electrical service panel or heating equipment, without covering or obstructing the visibility of the circuit directory label, service disconnect label or other required labels.
3. Within 30 days of completing construction, send one copy each to:
 - ★ The town clerk for the town or city in which the home is located. (Note: Check local procedures before filing the certificate; local fees and forms may be required.)
 - ★ The Vermont Public Service Department (Planning & Energy Resources Division, 112 State Street, Drawer 20, Montpelier VT 05620-2601).

Vermont Residential Building Energy Code

Basic Requirements ~ Summary

Note: This is an overview of key points.

1	Air Leakage	Seal all joints, access holes and other such openings in the building envelope, as well as connections between building assemblies. Air barrier installation must follow criteria established in Section 2.1a.
2	Vapor Retarder	Provide an interior vapor retarder (e.g. 6 mil poly, kraft paper, or vapor-retarder paint) appropriate to wall insulation strategy; refer to Section 2.1c.
3	Duct Insulation	In unconditioned spaces, insulate supply and return ducts for heating and cooling systems to the same level as adjacent spaces.
4	Duct Sealing	All ducts, air handlers and filter boxes must be sealed and tested according to the standards outlined in Section 2.3c unless located within conditioned space. Building framing cavities may not be used as supply ducts.
5	HVAC Systems: Efficiency & Balancing	HVAC heating and cooling systems must comply with minimum federal efficiency standards; 80% AFUE for residential boilers; 78% AFUE for furnaces). All HVAC systems must provide a means of balancing, such as air dampers, adjustable registers or balancing valves.
6	Programmable Thermostat	Where the primary heating system is a forced-air furnace, forced-air split system heat pump, packaged unit heat pump, water boiler, or steam boiler, at least one programmable thermostat per home must be installed.
7	Solid Fuel-Burning Appliances and Fireplaces	All solid fuel-burning appliances and fireplaces must have tight-fitting, gasketed metal, glass or ceramic doors with compression closure or compression latch system.
8	Exhaust Fans	Exhaust dampers are required for kitchen, bath and dryer fans.
9	Ventilation & Combustion Air	All homes must have an automatically controlled ventilation system. Chimney-vented combustion devices must have combustion air. See Chapter 2 for details.
10	Maximum Fenestration U-Factor	The area-weighted average maximum fenestration U-factor permitted using trade-offs is 0.32 for windows and 0.55 for skylights.
11	Electric Systems	In most cases, each unit of a multi-family dwelling must have a separate electric meter.
12	Mechanical System Piping Insulation	Mechanical system piping capable of carrying fluids above 105°F (41°C) or below 55°F (13°C) must be insulated to a minimum of R-3.
13	Lighting	A minimum of 75% of the lamps in permanently installed lighting fixtures must be high-efficacy lamps.
14	Circulating Hot Water Systems	All circulating service hot water piping must be insulated to at least R-3. Circulating hot water systems must also include an automatic or readily accessible manual switch that can turn off the hot water circulating pump when the system is not in use.
15	Equipment Sizing	Heating and cooling equipment must be sized in accordance with ACCA Manual S based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies.
16	Heat Pump Supplementary Heat	Ductless air-source heat pumps may not have supplementary electric resistance heat integral to the unit.
17	Pools, Hot Tubs and Spas	All swimming pools must have a time clock to control the pump. Heated swimming pools must have both a heater on/off switch in an accessible location and a pool cover. Heaters may not have continuously burning pilot lights.
18	Certification	Complete a Vermont Residential Building Energy Standards Certificate for each dwelling. Send one copy to the Vermont Public Service Department and one copy to the town clerk of the town in which the property is located, and affix the original on or near the home's electrical panel or heating equipment.

An extended version of this may be found in Chapter 2.