

Vermont Energy Code, Energy Efficiency, Renewable Energy, & Green Building Resources

Vermont Energy Codes – Residential & Commercial

Vermont Department of Public Service - *State agency responsible for energy code administration*

Energy Efficiency Division, 112 State Street, Drawer 20, Montpelier, VT 05620-2601

Vermont Residential Building Energy Standards

Vermont Commercial Building Energy Standards

http://publicservice.vermont.gov/energy_efficiency/rbes

http://publicservice.vermont.gov/energy_efficiency/cbes

Energy Code Assistance Center - 888-373-2255 toll-free

Compliance is documented by posting a signed RBES or CBES Compliance Certificate on the electric service panel or on heating/cooling equipment, filing a copy with the Town Clerk, and mailing a copy to the VT Dept. of Public Service in Montpelier. Qualifying Owner/Builders (residential) can exempt themselves by filing a Disclosure of Non-Compliance.

Vermont Residential Building Energy Standards: *What Was Covered and When*

December 1, 2015 – Update Stretch Code for Act 250 &/or where local municipalities adopt it; affects all residential Act 250 projects commencing on or after 12/1/15

March 1, 2015 – Updated Base Code; affects all projects commencing on or after 3/1/15

Vermont Residential Energy Code Handbook Edition: Edition 4.0

http://publicservice.vermont.gov/sites/psd/files/Topics/Energy_Efficiency/RBES/2015%20RBES%20Handbook.pdf

Home Energy Rating “Index” score indicating Stretch Code compliance: ≤ 54 (see Home Energy Ratings page 2).

Home Energy Rating “Index” score indicating Base Code compliance: ≤ 60

October 1, 2011 – Updated - Increases energy-efficiency required for the first time requiring energy efficiency above the long standing norms of conventional construction practice & expands jurisdiction to include alterations, renovations, and repairs; affects all projects commencing on or after 10/1/11

Vermont Residential Energy Code Handbook Edition: Edition 3.1

http://publicservice.vermont.gov/sites/psd/files/Topics/Energy_Efficiency/2011%20VT%20Energy%20Code%20Handbook%20V.2.1%20FINAL.pdf

Home Energy Rating “Index” score indicating compliance: ≤ 75

January 1, 2005 – Updated - Added indoor air quality protection via new mechanical ventilation & combustion safety requirements

Vermont Residential Energy Code Handbook Edition: Edition 2.0

http://publicservice.vermont.gov/sites/psd/files/Topics/Energy_Efficiency/RBES/energy_code_handbook_09-04%5B1%5D.pdf

Home Energy Rating “Classic” score indicating compliance: ≥ 82 for single family & multifamily homes, & ≥ 80 for log homes.

Home Energy Rating “Index” score indicating compliance: ≤ 90 for single family & multifamily homes, & ≤ 100 for log homes.

July 1, 1998 - All other new residential buildings (3 stories or less) **& additions** of 500 square feet or more

July 1, 1997 – All Act 250 permitted projects, new residential buildings 3 stories or less

Vermont Residential Energy Code Handbook Edition: Edition E-1.0

http://publicservice.vermont.gov/sites/psd/files/Topics/Energy_Efficiency/RBES/1997%20RBES%20Handbook%5B1%5D.pdf

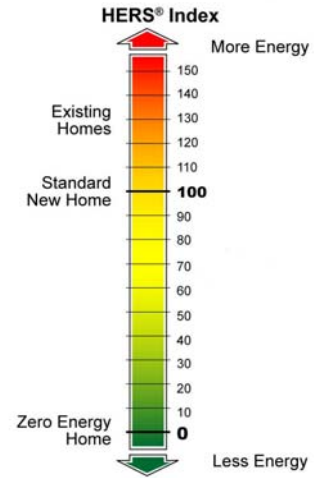
Home Energy Rating “Classic” score indicating compliance: ≥ 82 for single family & multifamily homes, & ≥ 80 for log homes.

Home Energy Rating System (HERS)

From 1995 to the end of 2006, Home Energy Rating Systems (HERS) “Classic” Ratings were in effect and provided in Vermont. The scale for Classic Ratings was from 0 (worst – most energy used) to 100 (best – least energy used).

Starting July 1, 2006, all new Home Energy Ratings began using the “Index” Rating method. The scale for Index Ratings was from 0 (best – least energy used – a net zero energy home) to 500 worst – most energy used). HRES scores can be negative #s when a home produces more energy than it uses.

Home Energy Ratings are provided to successful participants in Efficiency Vermont’s Residential New Construction Service. They are one of three optional methods for documenting compliance with Vermont’s Residential Building Energy Standards. HERS Index Scores can also be entered now in our MLS (NEREN). HERS is governed by the Residential Energy Services Network (RESNET) www.resnet.us/



Energy Efficiency Services

Efficiency Vermont

Statewide energy efficiency utility providing residential, commercial, & agricultural services
888-921-5990 toll-free - www.encyvermont.com



New Homes	Existing Homes
<p>Residential New Construction (RNC) Services</p> <p>Efficiency Vermont & Vermont Gas System’s residential new construction & gut rehab services, certifying: Efficiency Vermont Certified (~10% more energy efficient than Base Code)</p> <ul style="list-style-type: none"> • U.S EPA ENERGY STAR® certified Home (~15% more energy efficient than Base Code) • Efficiency Vermont Certified High Performance Home (~37% more energy efficient than Base Code) – homes meeting this standard are Net Zero Energy ready and often fossil fuel free <p>Successful participants receive: RBES (code) Compliance Certificate, a Home Energy Rating Index Score (HERS), and rebates (min. \$500 max. \$2,000)</p> <p>800-893-1997 toll-free – vtwise@together.net www.encyvermont.com/services/renovation-construction/residential-new-construction</p> <p>RNC office arranges local support & verification services for building certifications: Passive House (PHIUS+), LEED for Homes, & ICC 700 National Green Building Standard.</p>	<p>Home Performance with ENERGY STAR®</p> <p>Efficiency Vermont’s existing home audit and home improvement service Home Performance with ENERGY STAR is a comprehensive way to understand a home’s energy use, locate trouble spots, and determine the best course of action.</p> <ul style="list-style-type: none"> • Identifies the best opportunities for saving energy and protecting health and safety • Can include diagnostic tools and a blower door test to pinpoint trouble spots • Must work with a Home Performance with ENERGY STAR contractor to be eligible for incentives <p>2016 pilot, some participants will have an option to receive a Vermont Home Energy Profile (MMBtu/Year) and U.S. DOE Home Energy Score (1-10) asset ratings.</p> <p>888-921-5990 toll-free www.encyvermont.com/services/energy-assessments/home-energy-assessments</p> <p>Find a Home Performance with ENERGY STAR Contractor: www.encyvermont.com/find-contractor-retailer</p>

Vermont Gas Systems

Chittenden and Franklin county service territory energy efficiency services for residential and customers
802-863-4511 - <https://vermontgas.com/efficiency/>



Passive House Institute U.S. (PHIUS)

Passive House – PHIUS+ a very aggressive energy efficiency standard and certification
217-344-1294 - info@passivehouse.us - www.passivehouse.us/passiveHouse/PHIUSHome.html
PHIUS Project Database: www.passivehouse.us/projects.php



Active Green Building Programs

ICC 700 National Green Building Standard (NGBS)

Home Innovation Research Labs (formerly the NAHB Research Center)
National: www.homeinnovation.com/green

To arrange for a 3rd party NGBS Verifier contact: Jeff Gephart
800-893-1997 - vtwise@together.net



U.S. Green Building Council (USGBC)

USGBC - LEED™ for Homes

National: www.usgbc.org/
LEED for Homes certification & services in Vermont contact: Jeff Gephart
800-893-1997 - vtwise@together.net



Vermont Housing Finance Agency (VHFA)

www.vhfa.org/index.php

VHFA Green Building & Design Standards

802-652-3478 - dadams@vhfa.org - www.vhfa.org/documents/developers/gbs.pdf



Sustainable Building Advocacy & Networking

Passive House Alliance

www.phaus.org/home-page

Passive House Alliance Vermont

802-233-2015 - info@phausvt.org - www.phausvt.org



Vermont Green Building Network

Formerly the Vermont Chapter of the U.S. Green Building Council (USGBC)
Contact: Jenna Antonino DiMare, Administrative Director
802-735-2192 - vermontgbn@gmail.com - www.vtgreenbuildingnetwork.org/



Renewable Energy Incentives & Information

The Vermont Small Scale Renewable Energy Incentive Program

Renewable Energy Resource Center (*administrator of state renewable incentives*)

877-888-7372 toll-free - reec@veic.org - www.reec-vt.org/

Applications for funding now limited to solar hot water and modern wood pellet boiler heating systems



Renewable Energy Vermont

Non-profit, non-partisan renewable energy trade association

802-229-0099 - www.revermont.org/main/



Real Estate Market Transformation Collaboration

Vermont Green Home Alliance

An easy way to link to the contact information & websites for all of the building programs, RBES (code), U.S. EPA ENERGY STAR® Homes, Efficiency Vermont & Vermont ENERGY STAR® Homes, as well as all available green building programs.

800-893-1997 - vtwise@together.net - www.vermontgreenhomealliance.org/

Vermont Green Home Alliance members:		
<ul style="list-style-type: none"> • Assoc of Vermont Credit Unions • Building for Social Responsibility • Building Performance Professionals Assoc of Vermont • Efficiency Vermont • Energy Futures Group 	<ul style="list-style-type: none"> • Home Builders & Remodelers Assoc of Northern Vermont • New England Real Estate Network • Passive House Alliance Vermont • VT Assoc of Prof Home Inspectors • Appraisal Institute Vermont 	<ul style="list-style-type: none"> • Vermont Energy Investment Corp • Vermont Green Building Network • Vermont Housing Finance Agency • VT Mortgage Bankers Association • Vermont Realtors® • VSECU

New England Real Estate Network (NNEREN)

www.neren.com

NEREN, a Multiple Listing Service (MLS) that covers all of Vermont and New Hampshire (and small amounts of MA and ME) now includes the following information.



Public & Subscriber website:

Current Data Fields:

- Home Energy Rating Index Score (see page 2)
- 3rd party verified energy efficiency and green building certifications (e.g., ENERGY STAR Homes, LEED for Homes, National Green Building Standard, Passive House, and Vermont Builds Greener).

NNEREN subscriber only website:

- Self-guided PowerPoint: *Greening Our MLS - Using Home Energy Ratings & Building Certifications to Document & Market Energy-Efficient & Green Certified Homes at NEREN.COM*, explaining the national Home Energy Rating System (HERS) in detail and providing guidance and support (a conversion table) for dealing with homes with Home Energy Ratings under the pre-2006 “Classic” Home Energy Rating Score.

- **HERS Database for Appraisers & Realtors®**

Many of the most energy-efficient and green certified homes being built in Vermont are custom homes that are never listed on the MLS. Efficiency Vermont has created a database that includes all homes that participate in Efficiency Vermont’s Residential New Construction (and full gut-rehab) Services. The HERS Appraiser Database (look near the Grand List) includes:

- State
- County
- 911 Address
- Zip Code
- Home Energy Rating Index Score
- any & all 3rd-party verified building certifications/level earned

Data is added to this searchable database quarterly. Data begins 10/17/2011, and continues to the present. Later this year data fields for the existing home Vermont Home Energy Profile (MMBtu/year – all fuels) and U.S. Dept. of Energy’s Home Energy Score and will be added to the MLS and to this database.

Future Data Fields revised to achieve Real Estate Standards Organization Data Dictionary Silver Compliance:

- 3rd party verified profiles, ratings, and scores:
 - Home Energy Rating Index Score*
 - Vermont Home Energy Profile
 - U.S. DOE Home Energy Score
- 3rd party verified energy efficiency and green building certifications:
 - Home Performance with ENERGY STAR
 - Efficiency Vermont Certified*
 - ENERGY STAR Homes*
 - Efficiency Vermont Certified High Performance Home*
 - Passive House, LEED for Homes*
 - National Green Building Standard)*

* New home scores or building certifications that can be displayed with status: “Pending” (as modeled from plans by an independent 3rd party verifier) and “Complete” (inspected and verified by an independent 3rd party).