

Testimony in support of
H.181: An act relating to Residential and
Commercial Building Energy Standards

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H.181

➔ *Extend the term of the Building Energy Code Working Group (BECWG) ... until a state entity is named to enforce the building energy code*

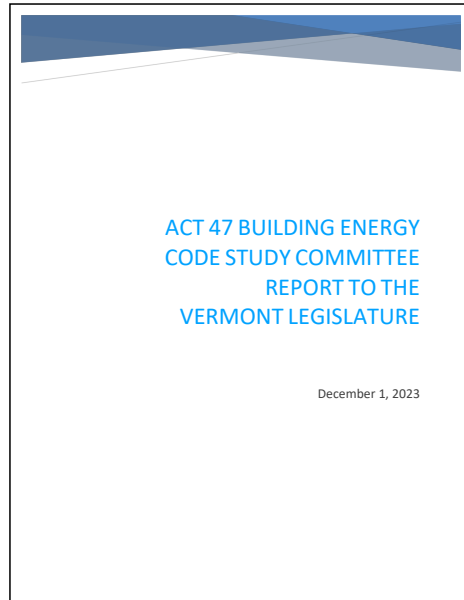
➔ PSD to develop a framework to attribute savings to building energy code compliance

IAAVT supports this charge.

The language pointing to naming an AHJ has become more focused.

IAAVT supports this charge.

EEUs should play a greater role in potential plan for energy code implementation.



2023 Act 47:

"...Recommend strategies to increase awareness of and compliance with RBES and CBES including the potential designation of the Division of Fire Safety (DFS) ... as the statewide authority having jurisdiction (AHJ) for administration, interpretation, and enforcement, in conjunction with DFS's existing jurisdiction over building codes."

➔ **BECSC final report:** (Dec 2023)

- Yes, designate DFS as the statewide AHJ.
- And establish a study committee on adopting a statewide residential building code

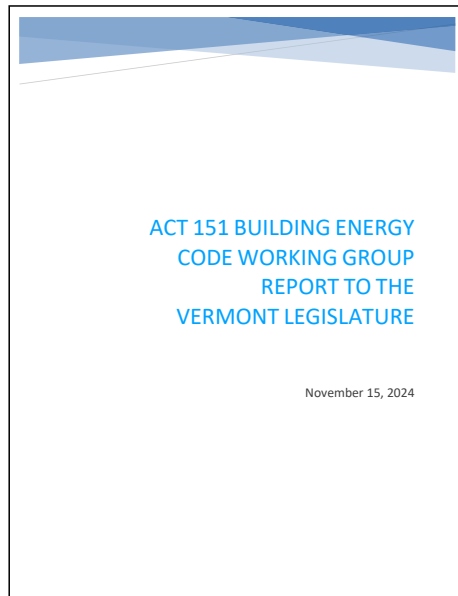
2024 Act 151:

1. *Recommend strategies to increase compliance with RBES and CBES, including ... certifications for contractors.*
2. *Develop plans ... for a potential transition to a comprehensive program for the RBES and CBES at the Division of Fire Safety, including potential funding sources.*
3. *Consider whether or not the State should adopt a statewide building code.*

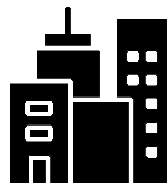
➔ **BECWG first report:** (Nov 2024)

- Establish a role for EEUs
- Establish process for state filing of RBES certificates
- DFS has formed an IRC Working Group

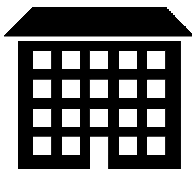
... Our Work Continues



Current Scope of Building and Energy Codes by Building Types



Commercial Buildings



Multi-family Residential over 3 stories



Muti-family Residential up to 3 stories



Two-family dwellings



Residential Rental Properties



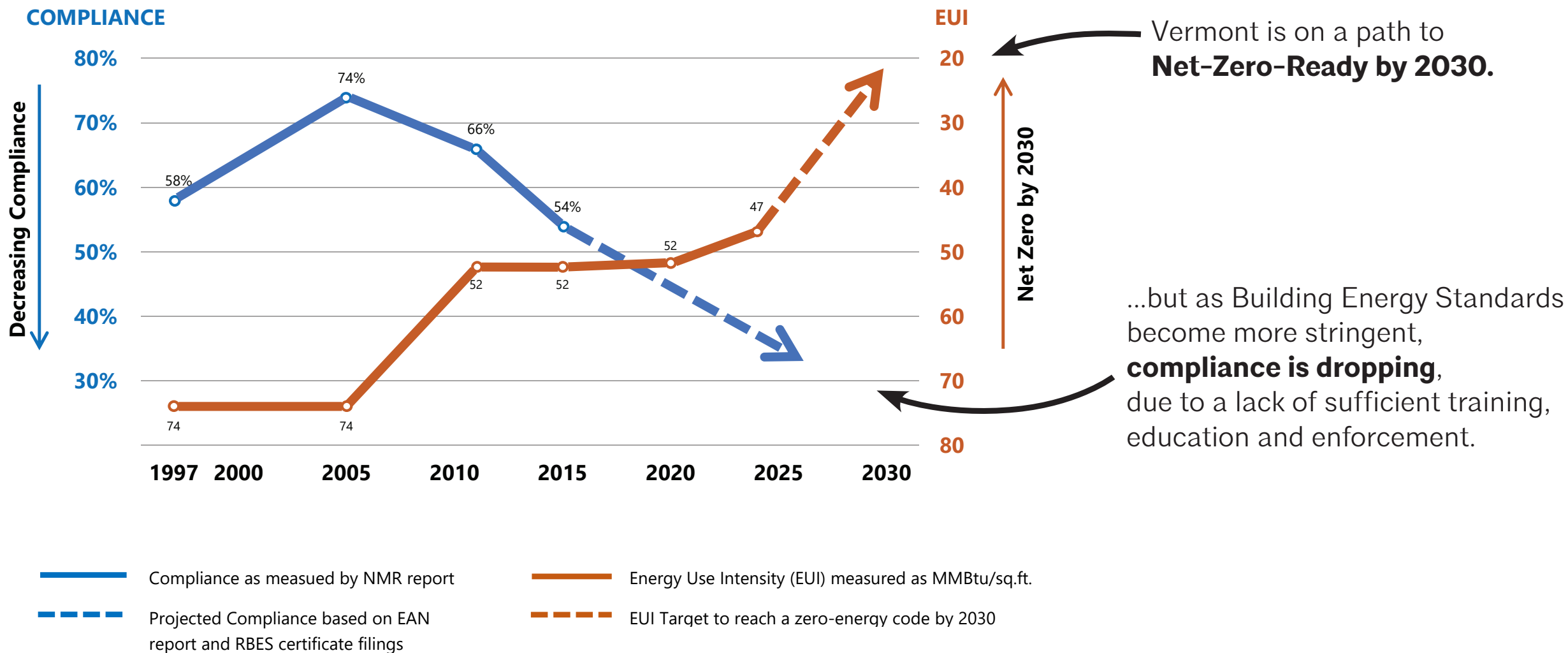
Owner-Occupied Single Family Homes

Energy Code	CBES	CBES	RBES	RBES	RBES	RBES
Enforcement Authority (DFS)	Yes - Filing and Posting Certificate before Occupancy					None
On-site Verification	Code Compliance: None EVT program compliance: EVT site visits for some projects					
Building Code	NFPA + IBC	NFPA + IBC	NFPA + IBC	NFPA	NFPA	Plumbing Only ¹
Enforcement Authority (DFS)	Yes	Yes	Yes	Yes	Yes	No
On-site Verification	DFS Inspections	DFS Inspections	DFS Inspections	DFS Inspections	DFS Inspections	None

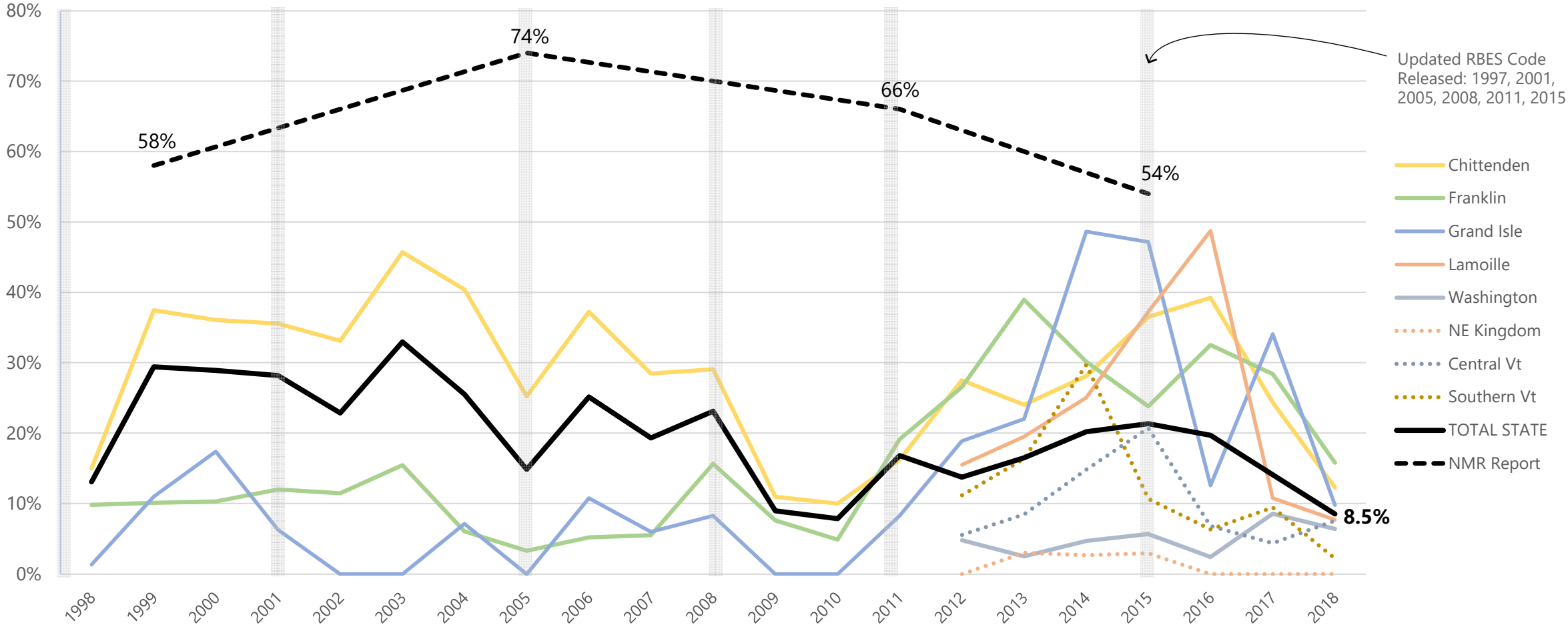
(note 1) A plumbing permit is required for homes using public water and/or public sewer. No plumbing permit is required for well or septic systems (besides a Vermont wastewater permit).

RBES Residential Building Energy Standards

Decreasing Rates of Compliance vs Increasing Requirements for Lower Energy Use

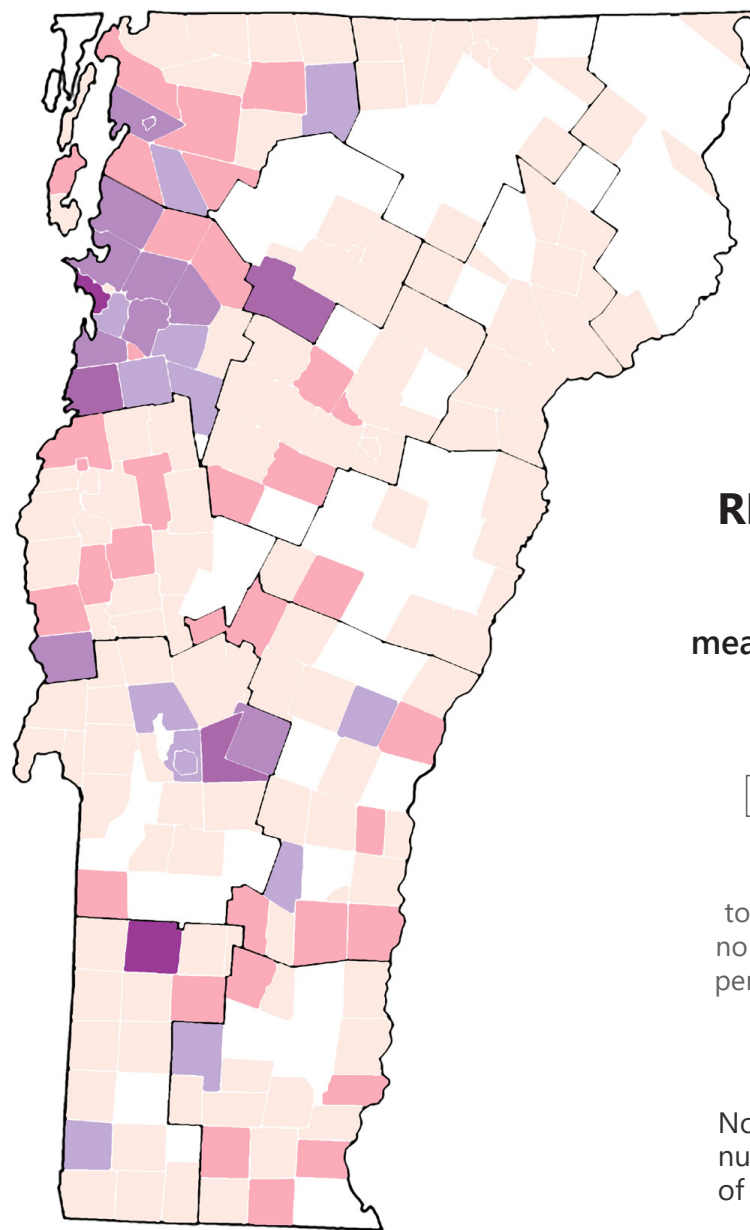


Percentage of RBES Certificates filed per total SFH Building Permits, 1998-2018



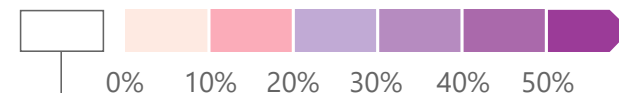
Note: 3 counties reported building permits by 1998; the rest of Vermont started reporting in 2012.

**Most Counties
outside of Chittenden
have filed RBES Certificates
for **fewer than 10%**
of Single Family Home
building permits.**



**RBES Certificates Filed by Town
21 Years: 1998-2018**

measured as percentage of building permits
for Single Family Homes (SFH)



towns with
no SFH bldg
permits filed

Note the southern town of Dorset had a very low
number of permits and a relatively large number
of undated certificates.

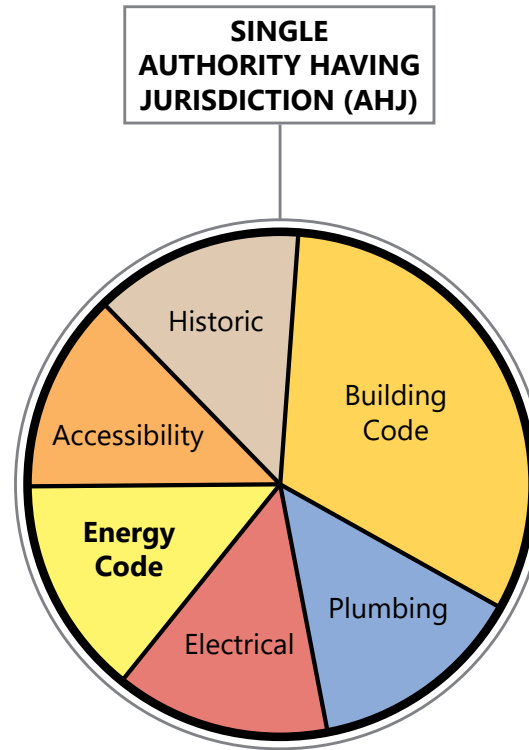
Sources: Vermont Dept of Public Service
and U.S. Census Bureau

One reason for this drop in compliance is the lack of a single statewide authority to oversee implementation of the code.

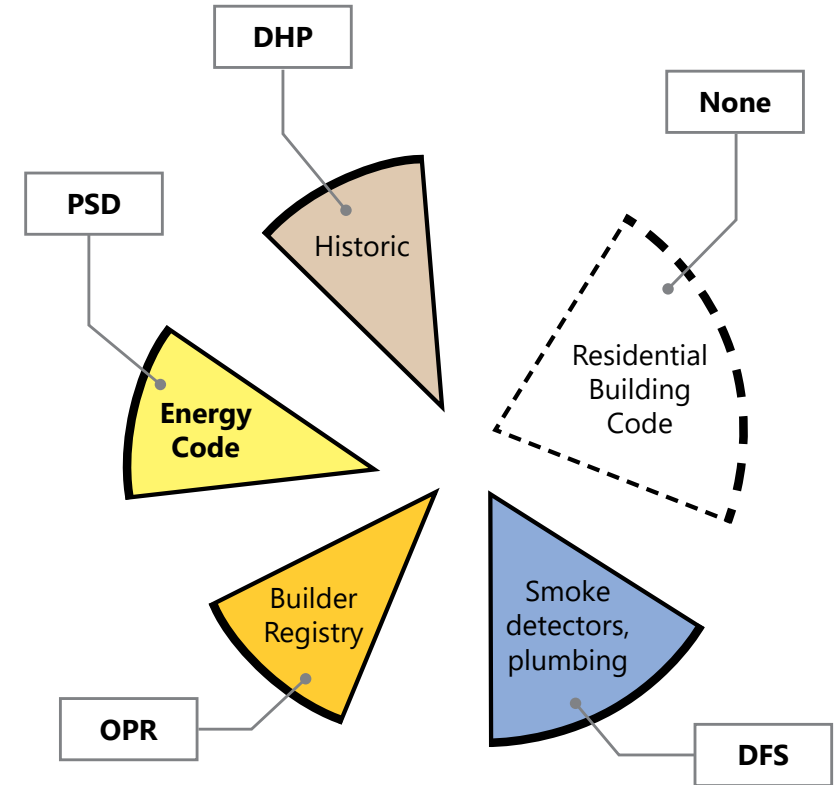
Other states have a coordinated, unified authority over residential construction.

Vermont has only partial and uncoordinated oversight.

And Vermont is the **only state** with no authority over residential single-family home construction.



OTHER STATES



VERMONT

50 State Building & Energy Code Comparison

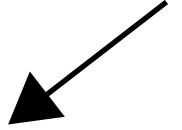
Level of building code authority and administration (including enforcement)

	Statewide authority; mandated local or state administration
	Statewide authority; optional town or county administration
	Authority and administration is by town or county (optional)
	No authority over single family homes

DOE Building Energy Codes Program: rates level of Energy Code goals (not level of enforcement)

	Statewide to ASHRAE 2019 or better
	Statewide to ASHRAE 2013 or better
	Statewide at some minimum level
	No energy code except in some municipalities

Northeast States											
State	CT	DE	MA	MD	ME	NH	NJ	NY	PA	RI	VT
Commercial: Edition of IBC with amend's	2021	By County	2015	2021	2015	2018	2021	2018	2018	2018	2015
Commercial Energy Code	2021	2018	2018	2021	2015	2018	ASHRAE 90.1-2019	2018	2018	2018	2018
Small Resid'l: Edition of IRC with amend's	2021	By County	2015	2021	2015	2018	2021	2018	2018	2018	NONE
Residential Energy Code	2021	2018	2018	2021	2015	2018	2021	2018	2018	2018	2018



Southeast States												
State	AL	AR	FL	GA	KY	LA	MS	NC	SC	TN	VA	WV
Commercial: Edition of IBC with amend's	2021	2021	2018	2018	2015	2021	2018	2018	2021	2012	2018	2018
Commercial Energy Code	ASHRAE 90.1-2013	2018/ 2021	2018	2015	2012	2021	2018	2018	2009	2012	2018	ASHRAE 90.1-2013
Small Resid'l: Edition of IRC with amend's	By County	2021	2018	2018	2018	2021	2018	2018	2021	2018	2018	2018
Residential Energy Code	2015	2018/ 2021	2018	2015	2012	2021	2018	2018	2009	2018	2018	2015

Plains States														
State	KS	ND	NE	OK	SD	TX	IA	IL	IN	MI	MN	MO	OH	WI
Commercial: Edition of IBC with amend's	By County	2021	2018	2018	2021	2012	2015	2021	2012	2015	2018	By County	2021	2015
Commercial Energy Code	2006	2021	2018	2006	2015	2015	2012	2021	2010	2015	2018	By County	2012	2015
Small Resid'l: Edition of IRC with amend's	By County	2021	2018	2018	2015	2012	2015	2021	2018	2015 structure	2018	By County	2018	2015
Residential Energy Code	By County	2021	2018	2009	2009	2015	2012	2021	2018	2015	2018	By County	2018	2015

Pacific States													
State	AK	CA	HI	OR	WA	AZ	CO	ID	MT	NM	NV	UT	WY
Commercial: Edition of IBC with amend's	2021	2021	2018	2021	2021	By county	By county	2018	2021	2021	2018	2021	2021
Commercial Energy Code	None	2022 CA Code	2021	ASHRAE 90.1-2019	2021	By county	By county	2018	2021	2018	2021	2021	By County
Small Resid'l: Edition of IRC with amend's	None	2021	2018	2018	2021	By county	By county	2018	2021	2021	2018	2021	By County
Residential Energy Code	2018	2022 CA Code	2021	2018	2021	By county	By county	2018	2021	2018	2021	2015	By County

Without significant building code reform:

- ✘ Vermont will not meet it's energy goals
- ✘ Builders will have greater risk and liability
- ✘ Homeowners will face rising costs and safety hazards due to poorly built structures and building science failures

AIA Vermont Supports These Actions:

- ☒ Increasing Training and Education, utilizing Vermont's existing network of Energy Professionals
- ☒ Establishing the IRC as Vermont's Residential Building Code for Single Family Homes
- ☒ Naming DFS as the Authority Having Jurisdiction over all Building and Building Energy Codes

Proposed Responsibilities and Authority for Building and Energy Code Administration

PSD	Department of Public Service
OPR	Office of Professional Regulation
DFS	Division of Fire Safety
EEU	Energy Efficiency Utilities

A Phased Approach, implemented over 6+ years

note 1	Non-energy codes: Building (IBC), Fire Safety (NFPA), Accessibility (ADA), Plumbing (IPC), Electrical, Elevators, Existing Buildings.
note 2	No variance process is currently outlined in RBES. Division for Historic Preservation currently has some authority over historic homes and should retain this authority.
note 3	DFS currently licenses building trades: Electricians, Plumbers, Elevator Installers, Gas, Oil, Sprinkler, Fire Alarms, Chemical Suppression, Sprinklers, Chimney Sweeps, Generator Installers. Most require continuing education. Solar installers, energy consultants & HERS raters are not regulated.
note 4	Currently OPR registers homebuilders for fraud purposes (no certification or licensure). Building inspectors and Architects are also registered by OPR.

	Current	by 2026	by 2028	by 2030
General Authority				
Commercial building codes <i>(note 1)</i>	DFS	DFS	DFS	DFS
Commercial energy codes (CBES)	PSD	DFS	DFS	DFS
Residential building codes: rentals and duplexes	DFS	DFS	DFS	DFS
Residential building codes: owner-occupied SFH	none	none	DFS	DFS
Residential energy codes (RBES)	PSD	DFS	DFS	DFS
Rule-Making / Promulgation				
Promulgation of CBES	PSD	PSD	DFS+PSD	DFS+PSD
Promulgation of RBES	PSD	PSD	DFS+PSD	DFS+PSD
Develop targets for future energy codes	PSD	PSD	PSD	PSD
Verification & Technical Support				
Building code compliance <i>(note 1)</i>	DFS	DFS	DFS	DFS
Energy Code compliance:				
Site visits for EVT projects / high performance	EEU	EEU	EEU	DFS+EEU
Site visits for commercial + multi-family	none	EEU	DFS	DFS
Site visits for duplexes + rentals	none	EEU	DFS	DFS
Site visits for OO-SFH	none	none	EEU	DFS
Variances & code-conflict resolution <i>(note 2)</i>	none	DFS	DFS	DFS
Appeals process	none	DFS	DFS	DFS
Ability to stop work	none	DFS	DFS	DFS
Energy Code call center	PSD>EEU	PSD>EEU	DFS>EEU	DFS>EEU
Documentation				
Confirm CBES/RBES certificate is on site	DFS	DFS	DFS	DFS
Issue Certificates of Occupancy (C.O.s)	DFS	DFS	DFS	DFS
Statewide database of permits & C.O.s	none	DFS	DFS	DFS
Filing of RBES+CBES certificates (inc. SFH)	VT towns	DFS	DFS	DFS
Online application for RBES+CBES - public bldgs	none	none	DFS	DFS
Online application for RBES+CBES - SFH	none	none	none	DFS
Certification, Training & Education				
License building trades <i>(note 3)</i>	DFS	DFS	DFS	DFS
Residential Contractor Registry <i>(note 4)</i>	OPR	OPR	OPR	OPR
Residential Contractor Certifications (voluntary)	none	DFS	DFS	DFS
Establish RBES+CBES training standards	none	DFS+EEU	DFS	DFS