

2026 Annual Energy Report

**As Presented to the House Committee on Energy and Digital Infrastructure
January 26, 2026**

Vermont's Energy Supply and Demand

Key Insights, Recommendations, and Data on Vermont's Energy Sectors

January 15, 2026



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1. Introduction & Overview

Vermont's **energy policy**, as articulated in [30 V.S.A. 202a](#), is:

To assure, to the greatest extent practicable, that Vermont can meet its energy service needs in a manner that is adequate, reliable, secure, and sustainable; that assures affordability and encourages the State's economic vitality, the efficient use of energy resources, and cost-effective demand-side management; and that is environmentally sound.

Vermont's [Comprehensive Energy Plan](#), released in January 2022, recognizes that these goals are sometimes in competition. The plan balances the principles of Vermont energy policy which are all essential for a vibrant, resilient, and robust economy and for the health and well-being of all Vermonters. In doing so, the Comprehensive Energy Plan (CEP) re-affirms and builds upon long-standing high-level goals: meet 25% of Vermont's energy needs from renewable sources by 2025, 45% by 2035, and 90% by 2050. In addition, the CEP sets sector-specific targets.

This **Annual Energy Report** is designed to provide key insights and recommendations by the Department of Public Service (Department) that further CEP goals pursuant to 30 V.S.A. 202b(e). It also provides objective data as a matter of transparency and accountability.

The report begins by providing an overview of key insights and the Department's policy recommendations. Then, data trends, and other information about the demand, supply, and relevant programs and activity in the electricity, transportation, and thermal energy sectors is described.

Key Insights and Recommendations

Key Insights

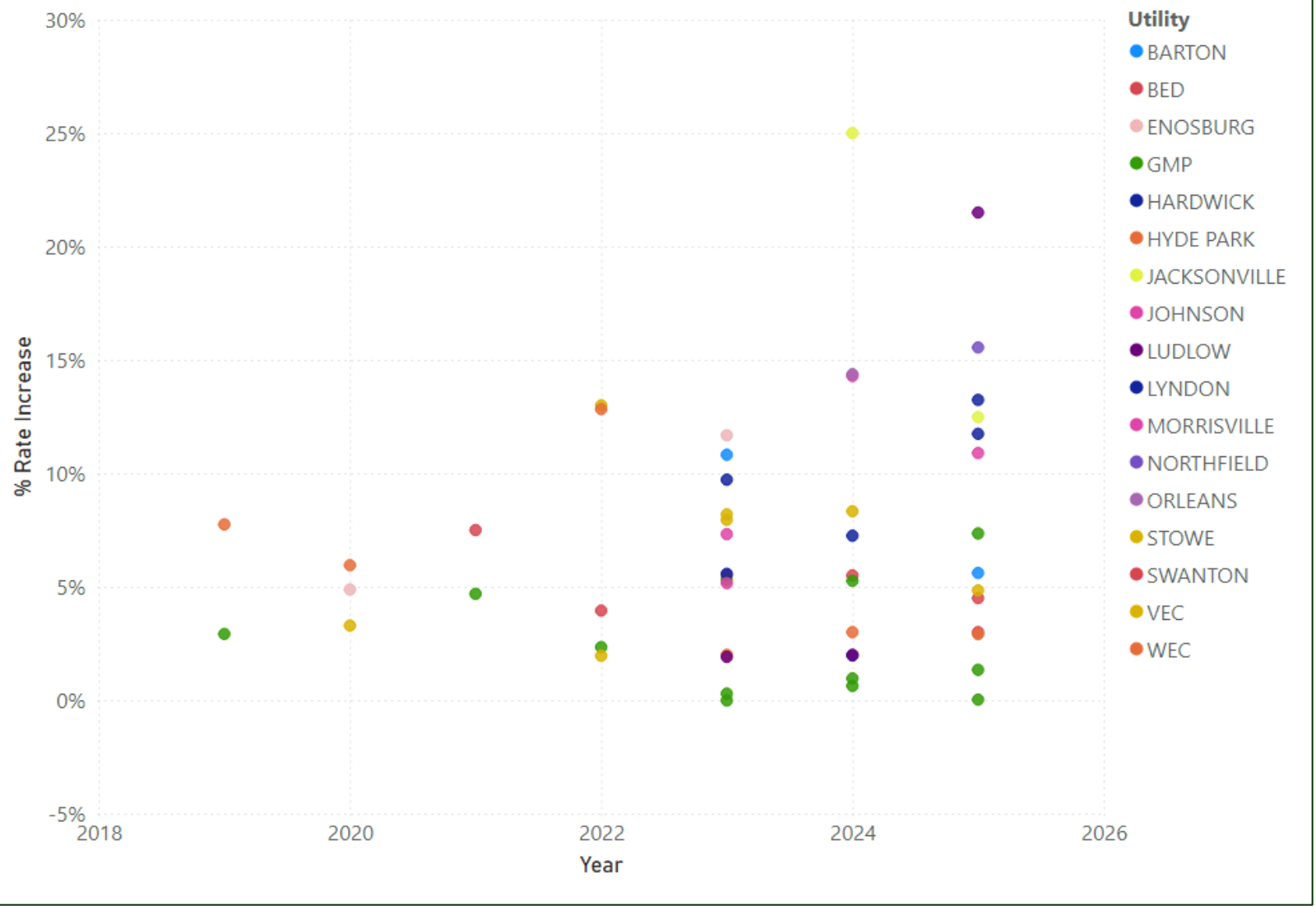


Several takeaways emerge from the information and data presented in the Annual Energy Report:

- ① **Vermont's electric rates are increasing quickly.** Dozens of rate cases over the last few years have substantially increased Vermonters' electricity cost burden. Regional cost pressures, renewable energy requirements, and storm costs are expected to continue to drive rate increases. Despite these increases, Vermont electric costs remain stable and slightly lower than other Northeast States.
- ② **Weatherization progress continues but could be more efficiently delivered.** Vermont continues to make slow but steady progress toward weatherizing its building stock. Dozens of programs serve Vermonters, but they can cause customer confusion and inefficient use of ratepayer and taxpayer investments.
- ③ **Federal Funding is Uncertain.** 2025 Saw significant federal funding disruption, affecting current programs and the expectation for future program availability.
- ④ **The instate near-term, clean energy market remains strong** with dozens of megawatts of solar being proposed by developers through contracts with utilities. Storage deployment remains top in the region. Vermont is ranked first in the nation in percent of Clean Energy Jobs per capita.
- ⑤ **Aggressively advancing flexible load management would provide multiple benefits.** The variability of load and the region's changing generation portfolio underscores need for utility operational flexibility; leveraging fiber networks, advanced metering and flexible load software tools provide an opportunity to lower costs that must be seized.

Key Insight ①: Electric Rates are Rising Quickly

Rate Increases by Utility



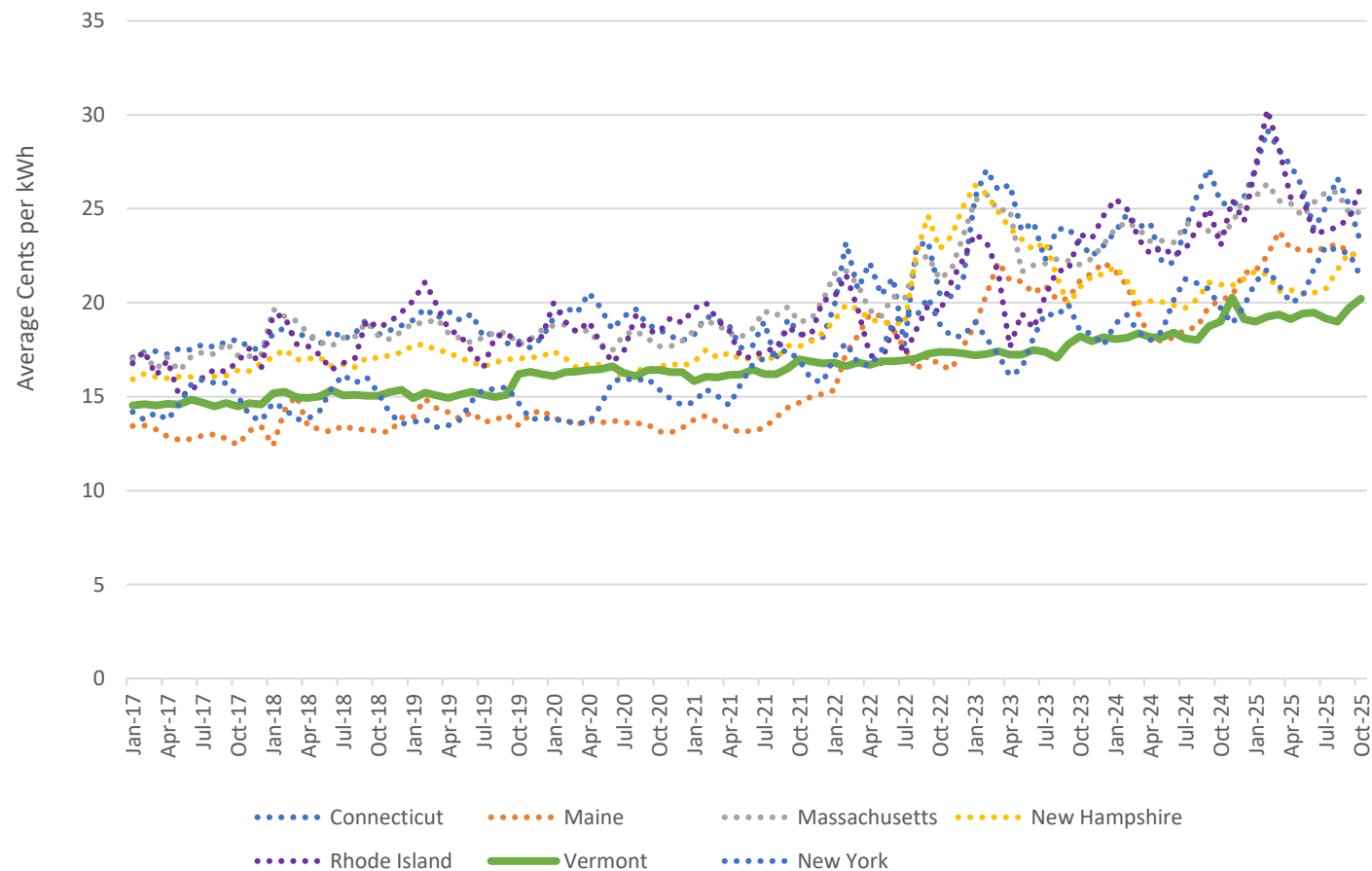
Vermont utilities have seen dozens of significant rate increases over the last several years

Data through August 2025

Despite recent rate increases, Vermont rates are increasing more slowly and steadily than others in the Northeast. The Northeast, however, continues to have some of the highest rates in the country

Vermont operates within a regulated electric utility structure, whereby utilities remain “vertically integrated” and are responsible for supply, transmission, and retail services to end-use customers. Unlike some other states, where power generation and supply roles are managed separately from distribution services, Vermont utilities are allowed to meet their supply needs through long-term contracts. As a result, contracts secured before the price spike insulate Vermont customers from some of the short-term market impacts. As shown by, Vermont’s prices have risen over the last two years, albeit much more slowly and steadily than other Northeastern states. Overall, the Northeast continues to have some of the highest electric rates in the country.

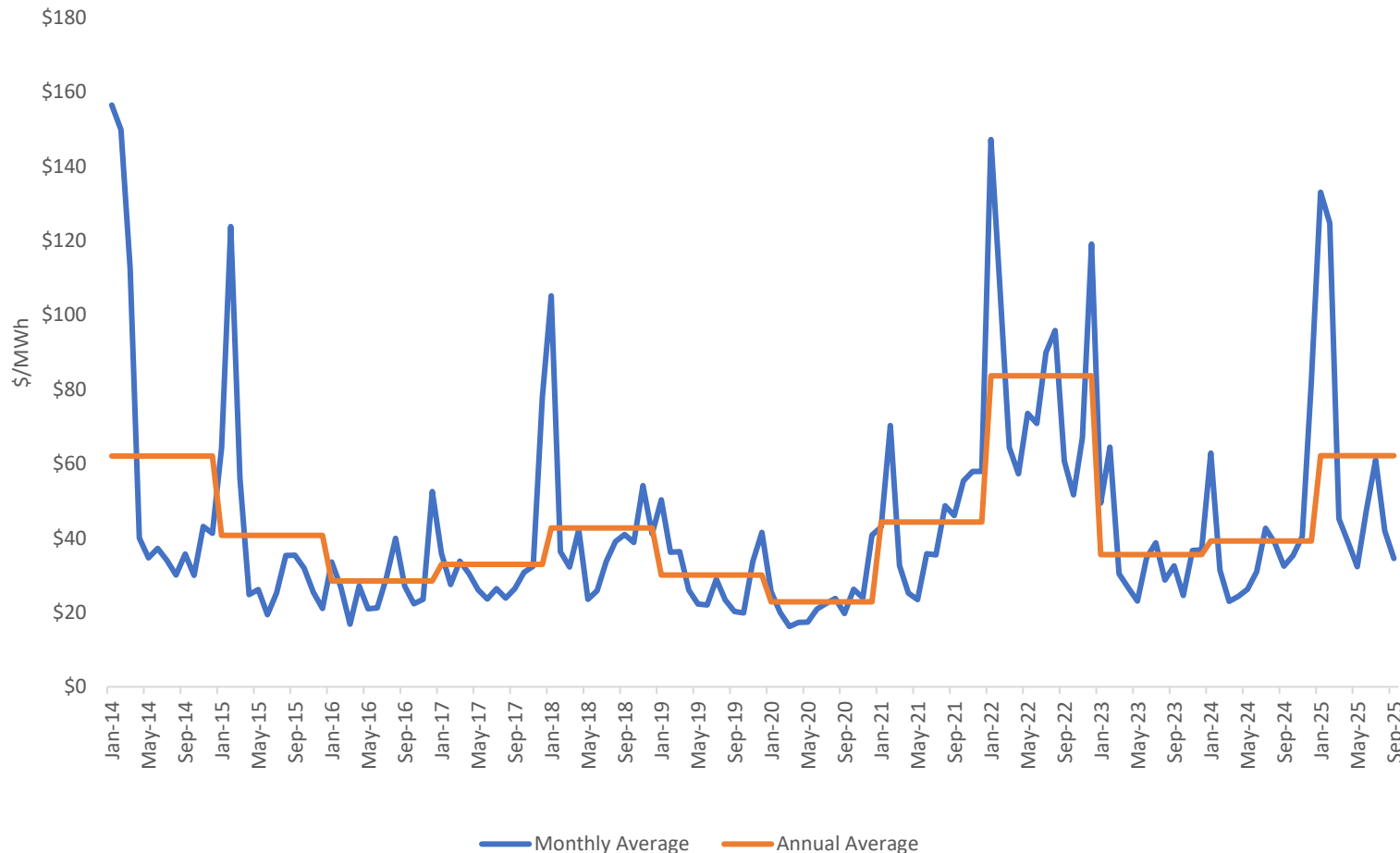
Monthly Retail Cost of Electricity



Data source: U.S. Energy Information Administration

2025 Wholesale Electricity Market Prices Increased

Vermont Real-Time Locational Marginal Price (LMP)



Natural gas generating facilities generally set the wholesale price of electricity in the ISO New England (ISO-NE) marketplace which serves Vermont utilities. The figure on this slide shows the wholesale price of electricity for the Vermont zone. Due to New England's reliance on gas generation, prices tend to be elevated during the winter months.

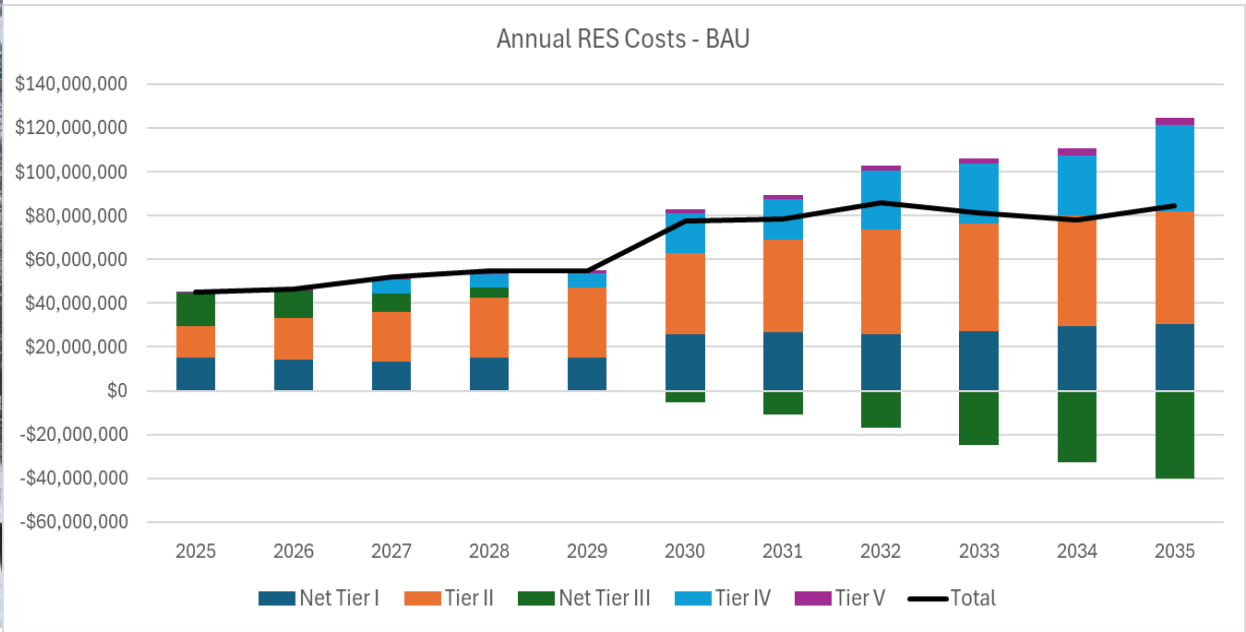
In 2025, the wholesale electricity market prices were substantially higher than the last two years. Vermont utilities are largely shielded from immediate impacts of these prices swings because they are well-hedged on an annual basis. However, impacts are usually felt over time as utilities enter into new agreements

Cost Drivers include Regional Transmission and Markets, Storm Restoration, and Renewable Energy Requirements

RNS Rate Forecast – Summary [Source: ISO-New England](#)

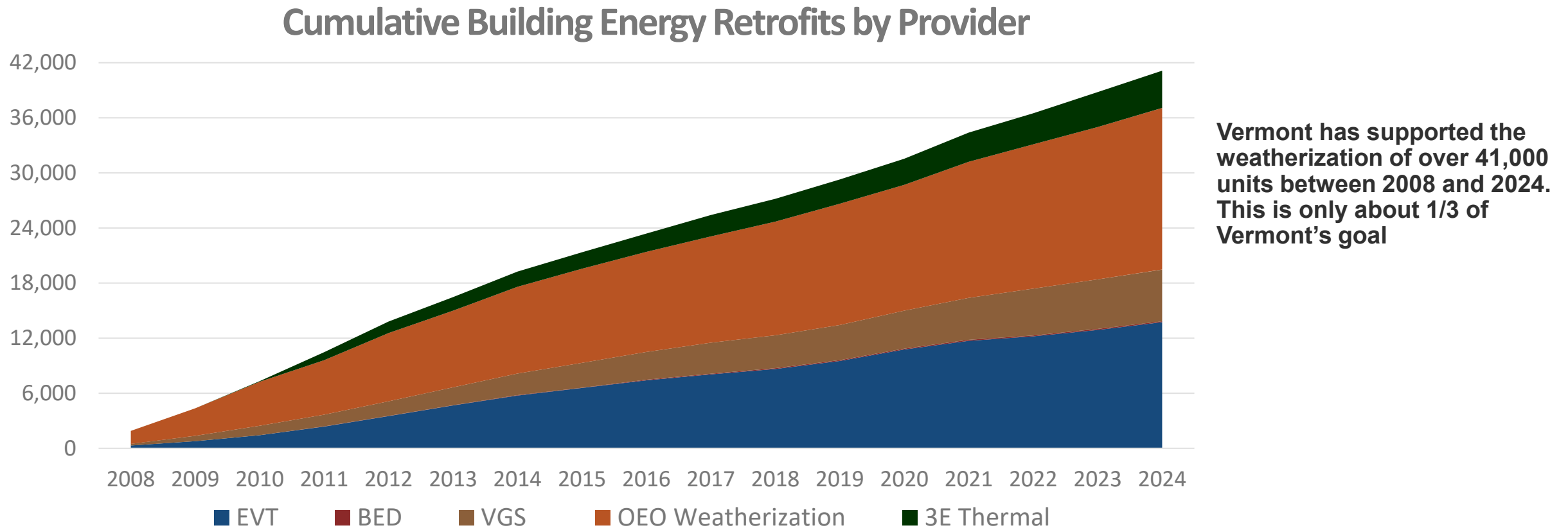
Table 1		1/1/2025	1/1/2026	1/1/2027	1/1/2028	1/1/2029
1	Estimated RNS Rate Impact (\$/kW-Yr) (Line (5) / CY Load ⁽¹⁾ held constant)	\$ 31	\$ 12	\$ 12	\$ 8	\$ 12
2	Estimated RNS Rate Forecast (\$/kW-Yr)	\$ 185 ⁽²⁾	\$ 184 ⁽³⁾	\$ 197	\$ 205	\$ 217
3	Estimated RNS Rate Forecast (\$/kWh) (Assumes a 54.7% ⁽⁴⁾ Load Factor)	\$ 0.029	\$ 0.029	\$ 0.031	\$ 0.032	\$ 0.034

New ISO-New England **Day Ahead Ancillary Services Market** to support daily operations and reliability of the grid has both increased costs in 2025 and made them more unpredictable. The Department estimates **approximately \$15-20 million** in costs from this market in 2025. Storm restoration, regional transmission, and Renewable Energy Standard costs are all expected to continue to put upward pressure on rates.



Key Insight ② : Weatherization Adoption Remains Slow and Steady

Over 40,000 Vermont Households have been Weatherized since 2008



Weatherization programs delivered over 2,300 efficiency projects in 2024

Weatherization programs focus on improvements to building insulation and air sealing to reduce the energy required to heat and cool indoor spaces, homeowner costs, and the carbon emissions from the burning of fossil fuels for space heat.

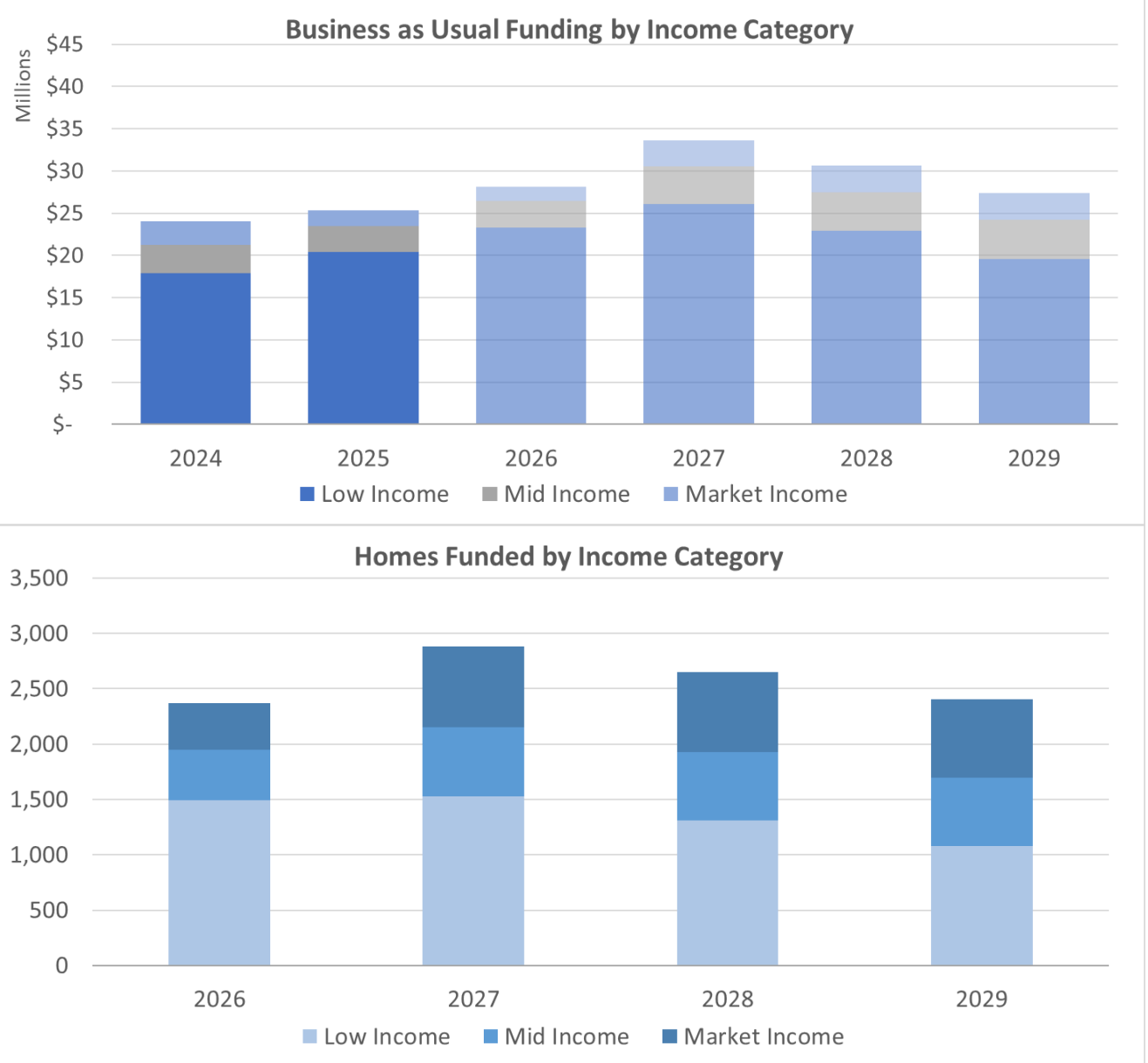
The 2022 Comprehensive Energy Plan set a target of comprehensively weatherizing a total of 120,000 homes by 2030. While significant federal funding has been dedicated to support Weatherization (as described elsewhere in this report), available workforce, long-term funding, and organizational capacity remain insufficient to meet that aspirational target.

There are five major weatherization programs in Vermont that are contributing to meeting the building energy goals of the state: Efficiency Vermont’s Home Performance with ENERGY STAR program, Vermont Gas Systems’ Home Retrofit program, the Burlington Electric Department, the Weatherization Assistance Program agencies coordinated by the Office of Economic Opportunity (OEO), and 3E Thermal, which focuses on multifamily buildings. As shown below, 2,323 comprehensive retrofit projects were completed in 2024, with an average fuel usage reduction of 26.6%.

2024 Building Energy Goals Tracking		
Total Projects (# units served)	2,323	Total number of housing units weatherized, including all comprehensive projects completed through the five participating program implementers: EVT, VGS,BED, OEO and 3E Thermal
Average % fuel usage reduction	26.6%	Average fuel usage reduction for projects completed in 2024 using fuel usage data when available and modeled estimates when fuel usage is unavailable
Carbon emissions reductions (pounds)	7,571,622	Carbon emissions reductions use a calculation based on Federal standards for fossil fuels and PSD derived values for emissions avoided through reduced electricity generation
Incentive costs	\$25,973,530	Direct financial incentives to the homeowner or building owner. (For OEO projects, all project costs are funded by OEO's Weatherization Assistance Program)
Participant costs	\$5,222,218	Program Participant contributions to the cost of the building improvements
Total project costs	\$31,234,626	

Estimated Near-Term Future Weatherization Funding

*This slide was not in the original AER filed on Jan 15



Public Service Department will review the >100 programs supporting Affordability for Vermonters

PUBLIC UTILITY COMMISSION

Case No. 25-0443-PET

Investigation pursuant to Act 142 of 2024 into the creation of a statewide program to reduce energy burden	
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VERMONT DEPARTMENT OF PUBLIC SERVICE RESPONSE TO PUBLIC UTILITY COMMISSION MEMORANDUM

On July 31, 2025, the Vermont Public Utility Commission (“Commission”) issued a memorandum requesting comments on various topics intended to inform the Commission’s December 1, 2025, report to the General Assembly on the need for a statewide energy cost stabilization program.¹ In this responsive comment, the Vermont Department of Public Service (“Department”) initially discusses the status of energy burden for Vermonters with low- and moderate-income and the programs available to support them. The Department requests that the Commission authorize the Department to perform an analysis of the approximately one hundred current energy cost-saving programs, as well as a determination of the costs attributable to State energy policy in order to inform this discussion and resultant prospective Department

Public Utility Commission Case No. 25-0443 investigated Vermont’s energy burden. The case revealed over 100 programs currently offering services to Vermonters that either directly or indirectly intend to reduce costs.

The PSD proposed a 2026 analysis of these energy-cost saving programs with the goal of uncovering opportunities for more efficient, clear, and effective delivery of services to Vermonters.

Key Insight③: Federal Funding is Uncertain

Federal Funding is Uncertain

Vermont, like other states, was awarded unprecedented amounts of federal funding for energy-related initiatives and projects through the American Rescue Plan Act (ARPA), the Infrastructure Investment and Jobs Act (IIJA, also called Bipartisan Infrastructure Law or BIL), and the Inflation Reduction Act (IRA).

The change in Administration at the federal level introduced significant disruption to federal funding throughout 2025. While implementation of ARPA and IIJA investments has continued, IRA implementation in Vermont has been delayed. Communication with federal agencies has been interrupted throughout the year and states have been subjected to unclear and changing guidance from the federal government throughout the year.

Significant amounts of resources continue to be devoted to securing, distributing, reporting on, and retaining federal funds in Vermont. [Section 3](#) provides an overview of federal funding – select program specifics can be found in appropriate sector sections of this document.

Key Insight ④: The Near-Term Clean Energy Market Remains Strong



#1 State in Clean Energy
Jobs Per Capita

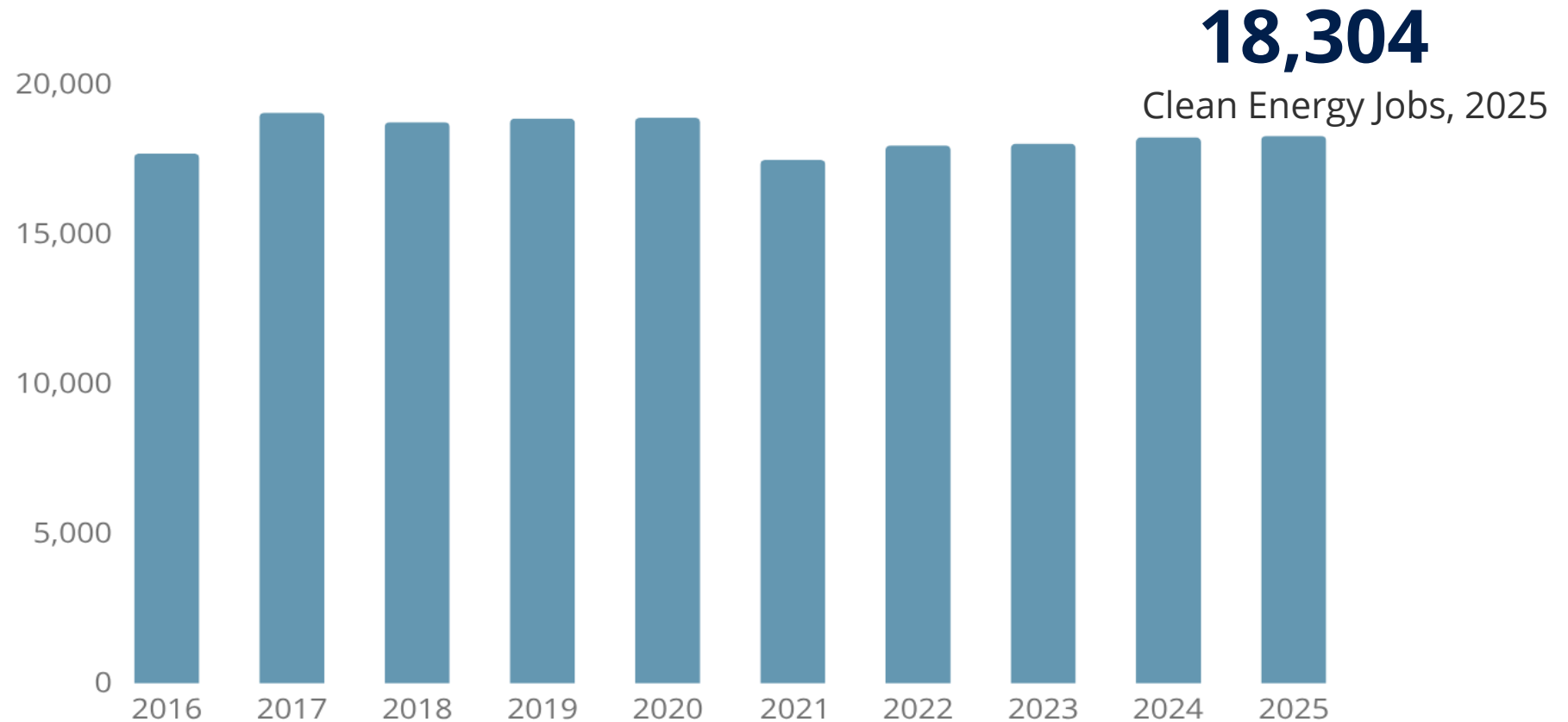
82%

Clean Energy Share of
State Energy Jobs, 2025

6%

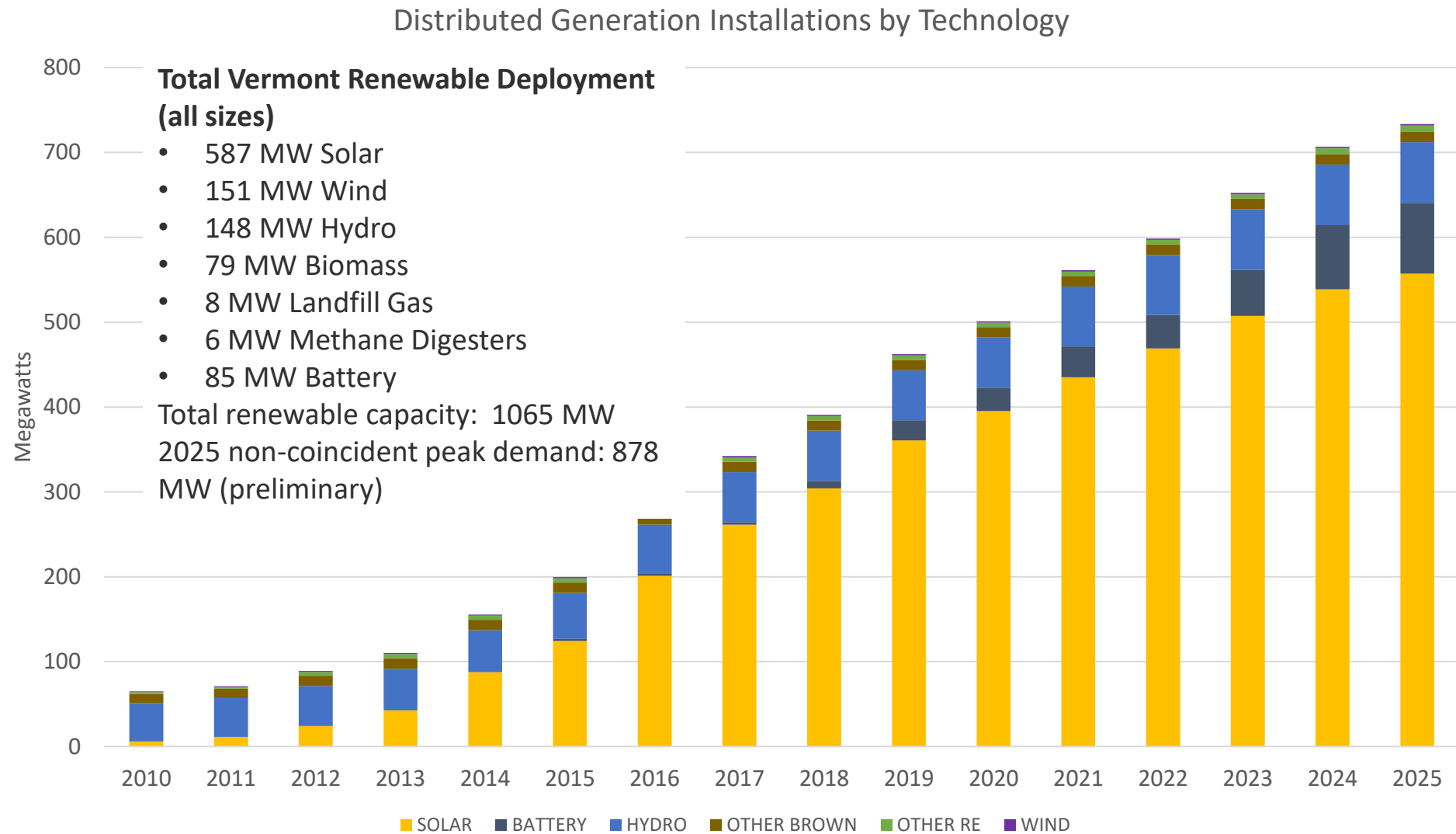
Clean Energy
Share of Total
State Jobs, 2025

The Clean Energy Economy



Each year, the Department's Clean Energy Development Fund issues the [Vermont Clean Energy Industry Report](#), drawing on data collected by the U.S. Department of Energy and its well-established methodology to characterize employment trends.

Vermont currently has significant penetration of renewables, especially Distributed Energy Resources (DERs)



**Derived from September 2025 utility PP-12 submissions to ISO-NE (excluding Stowe Electric Department) and additional data requests to Green Mountain Power*

VT now has over 733 MW of operational DERs including 85 MW of battery storage

Statewide Distributed Energy Resource(DER) Deployment

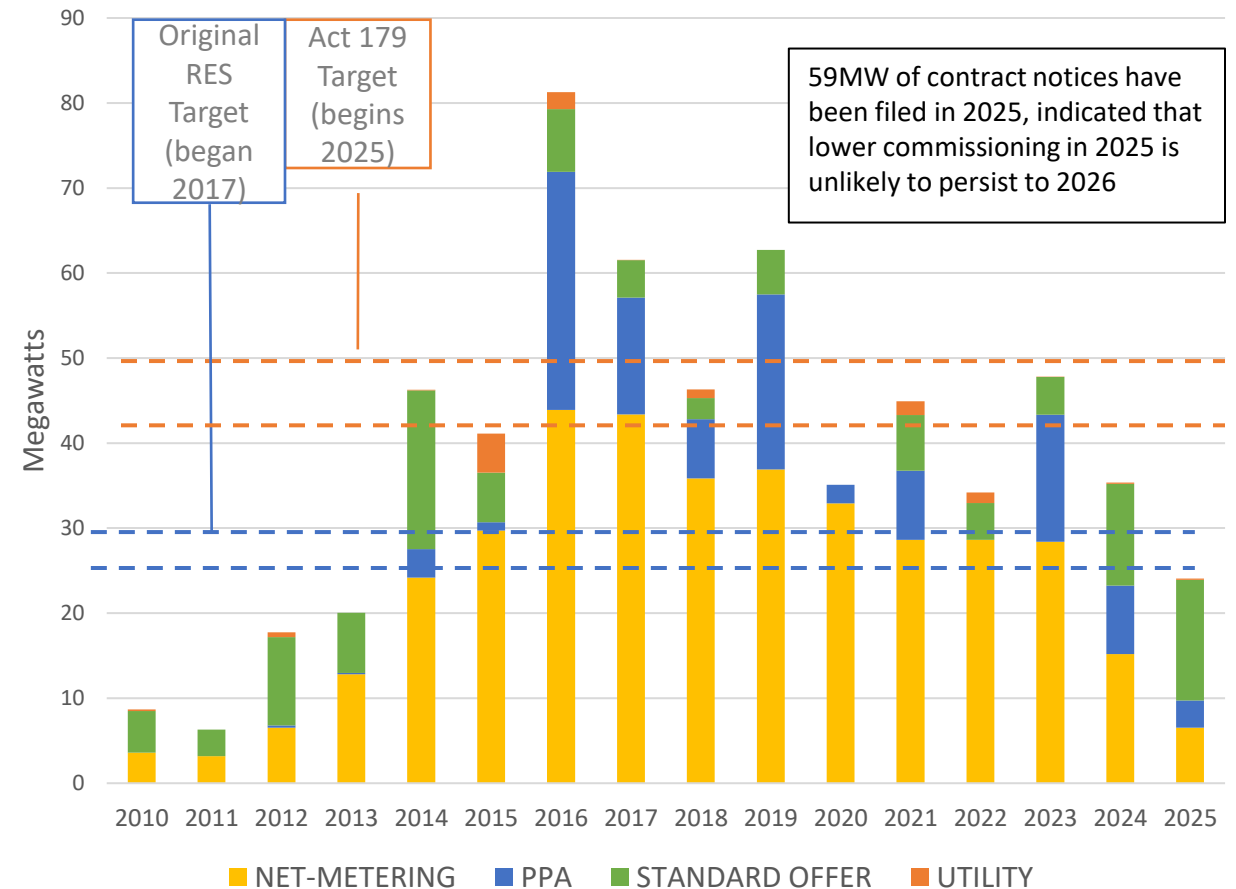
Approximately 25-30 MW per year of distributed generation (DG) was needed to meet requirements under Tier II of the previous Renewable Energy Standard (RES).

With the passage of Act 179 (2024), RES requirements have increased, requiring approximately 42-50 MW per year of new in-state DG from 2025-2034, depending on utility loads.

Tier II resources are likely to come from net-metering, Standard Offer, and resources owned by, or under contract to, utilities.

- 18.7 MW of new DG solar has been installed as of Aug. 2025
- An additional 4.4MW of Standard Offer has been installed since August
- Along with additional data through November from GMP, at least **31.7 MW of DG expected to be installed in 2025.**
- **59 MW of 5,200 PPA notices have been filed by utilities in 2025 as of 12/17/25, indicating 2026 is likely to see substantial deployment**

Annual DER Deployment by Program



Data for 2010-2024 is from the Department's DG Survey.

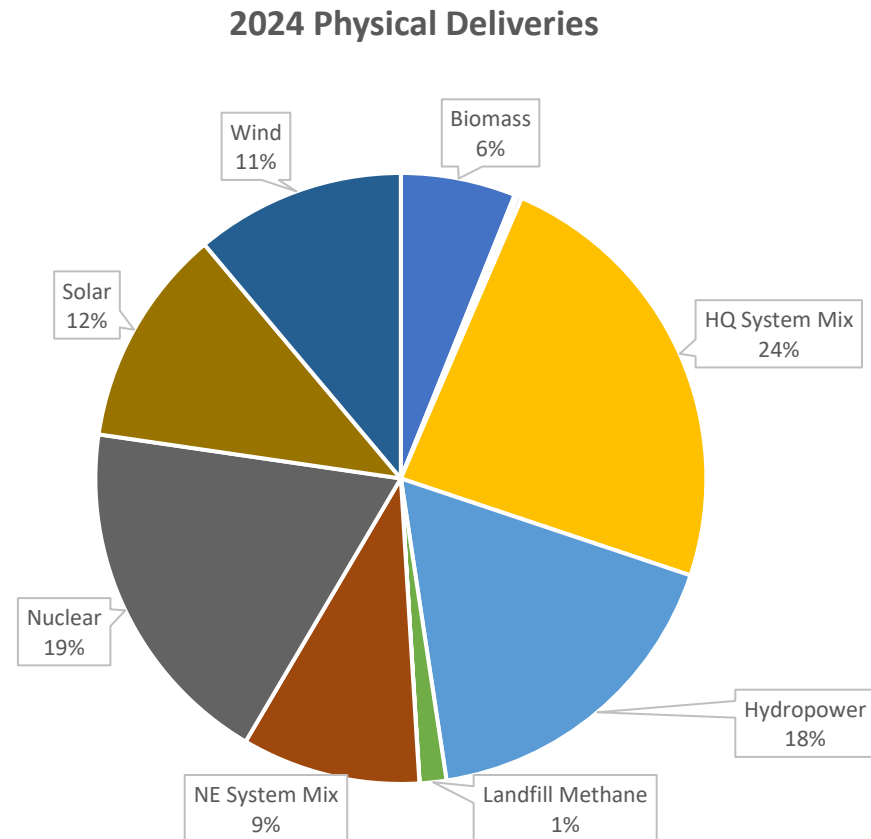
Data for 2025 is from ISO-NE's September PP-12 Survey current through August 2025.

Standard offer data is from VEPPi all years current through September 2025

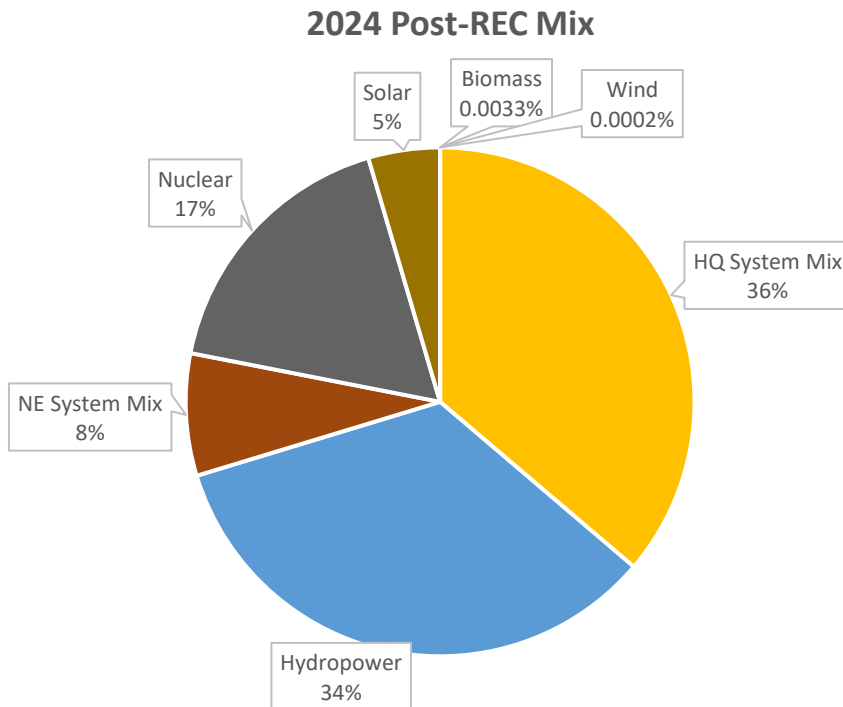
* Stowe Electric Department has been omitted from 2025 as they refused to comply with the Department's data request.

Vermont's 2024 Electric Power Mix Based on Physical Deliveries is 91% Clean

In 2024, Vermont distribution utilities purchased 5.7 Million megawatt-hours of electricity to meet the demand of their customers. Of this: ~72% came from renewable resources and an additional ~19% came from carbon-free resources (nuclear)



Vermont's 2024 Electric Power Mix After Renewable/Clean Energy Credit Retirements is 92% Clean



In 2024, Vermont distribution utilities retired 4.1 million renewable energy certificates (i.e. equivalent to 4.1 million megawatt-hours of electricity) to meet their obligations under Vermont's Renewable Energy Standard, and an additional 1 million clean energy attributes from nuclear resources.

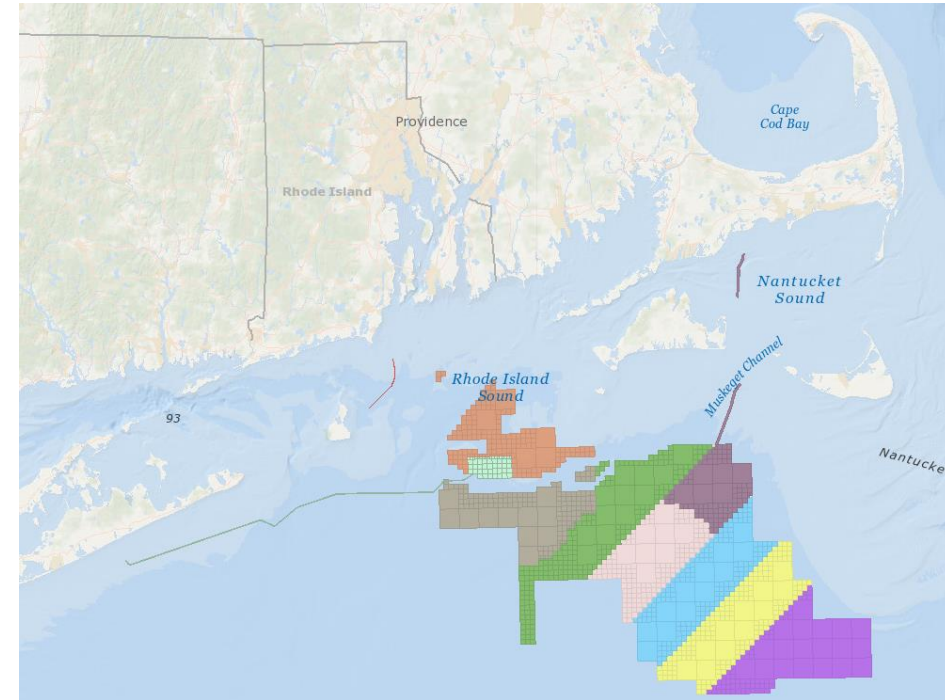
Note – Vermont Utilities were ~80% renewable based on retail sales but this chart depicts Vermont's electricity mix based on total load, which approximately 7-8% higher than retail sales

Offshore Wind faces headwinds while States explore Onshore Wind

The development of wind resources off the shores of New England has been challenged by policies of the federal administration. The 700 MW Revolution Wind project received a stop work order in August that was then lifted by a federal court, but it and the 800 MW Vineyard Wind project have recently had their leases suspended by the Bureau of Ocean Energy Management, again delaying completion. Over 50% of Vineyard Wind is online and operating, while Revolution wind is not yet operational. While Vermont utilities do not have contracts for these resources, they are an important part of New England's supply picture, providing significant new renewable, reliable generation. The continued regulatory uncertainty will increase rates for consumers in the near-term. In addition, future investment will be delayed and pricier as developers add additional project risk contingencies into their pricing.

Onshore, ISO-NE at the request of NESCOE*, has solicited proposals for transmission that could unlock Maine onshore wind capacity (existing and new). The solicitation seeks proposals for projects that provide 1,200 MW in transfer capability to central Maine to address an issue identified by ISO-NE in the 2050 Transmission Study. Additionally, the Public Service Department has facilitated Vermont utility participation in a solicitation by the Maine PUC for 1,200 MW of onshore generation and associated transmission capacity from central Maine to northern Maine. Proposals will be evaluated under Vermont's least cost planning framework.

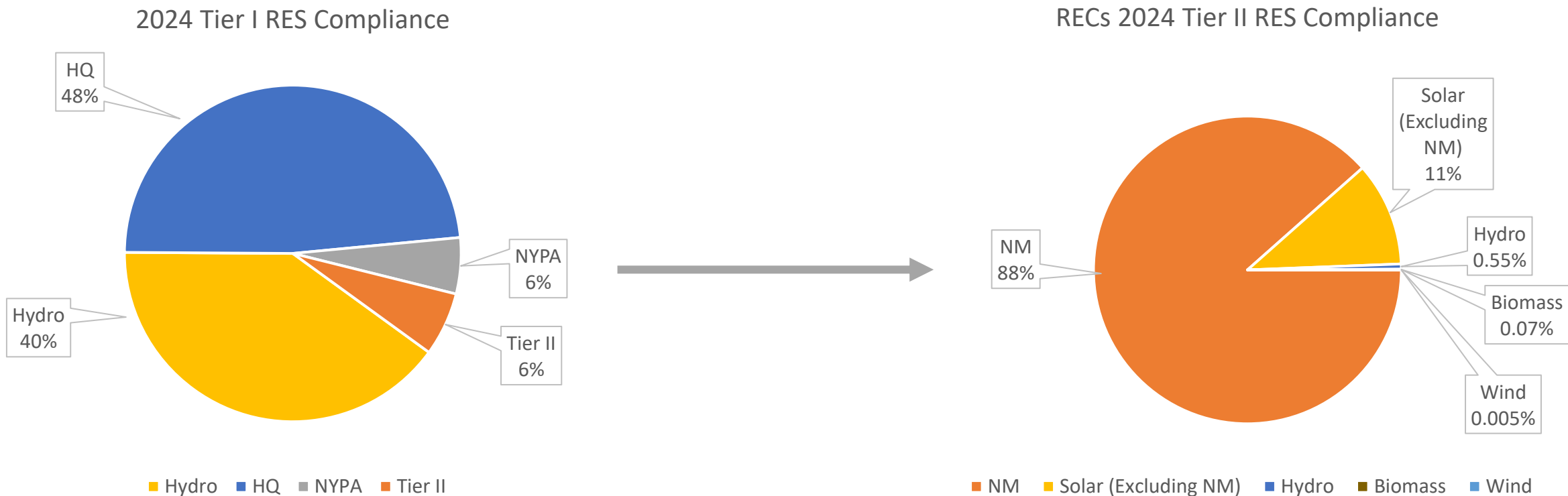
*NESCOE - New England States Committee on Electricity - represents the collective perspective of the six New England Governors in regional electricity matters and advances the New England states' common interest in the provision of electricity to consumers at the lowest possible prices over the long-term, consistent with maintaining reliable service and environmental quality.



Northeast offshore wind Bureau of Ocean Energy Management lease areas from northeastoceandata.org

2024 Renewable Energy Standard (RES) Compliance

In 2024, the RES required that Tier I renewable energy sources be at least 63% of the total for all electric distribution utilities' sales. For 2024, Tier I renewable energy credits totaled 79.7% of the State-wide power mix. The types of renewable energy that make up that 79.7% are in the chart below on the left. The chart on the right shows the types of Tier II in-state credits, which were almost all solar.



Key Insight ⑤:
**Variability of Load and Generation Creates New
Challenges and Opportunities
that Underscore Need for Flexibility
Mechanisms**

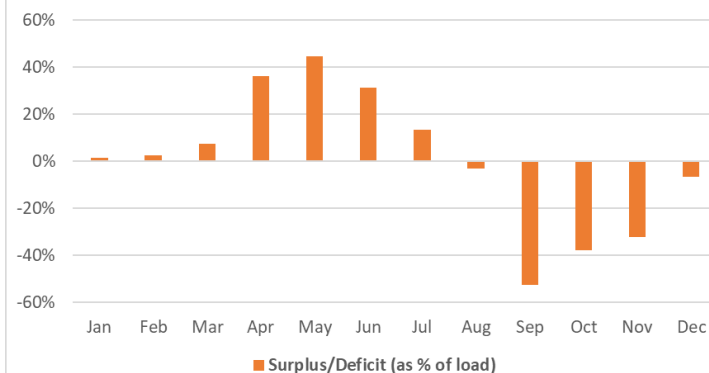
Variability of Load and Generation Creates New Challenges that underscore need for flexibility mechanisms

Vermont's Renewable Energy Standard (and all regional RPS) compliance is currently demonstrated on an annual basis, meaning that load that occurs when renewables aren't producing is often still being physically supported with non-renewable resources. As policymakers consider quarterly, monthly, or hourly compliance, storage and load management options will be required to align generation and load.

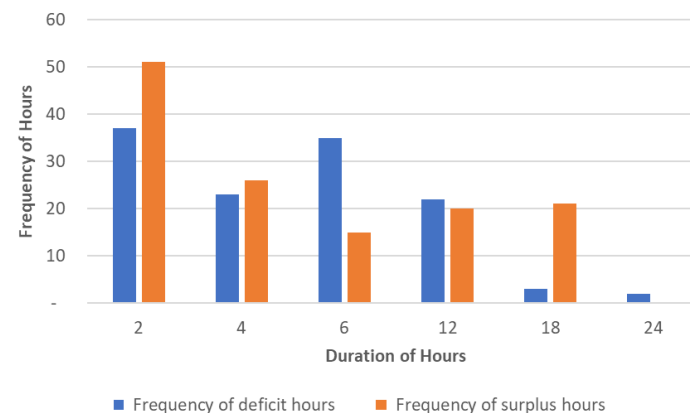
The bar charts on the left show an example from the Public Service Department's technical analysis completed in 2023, showing significant monthly energy surplus/deficit in the year 2025, assuming a 20% Tier II plus a 20% Regional Tier (similar to the Renewable Energy Standard that was ultimately enacted). The second bar chart shows the frequency of different surplus/duration deficits.

The line chart shows data from VELCO highlighting the impact of solar on load during the day, comparing a 2025 overcast spring day to sunny spring days from the last several years. The map shows Green Mountain Power's distribution circuits that have headroom to support additional solar (green) and those that don't (red).

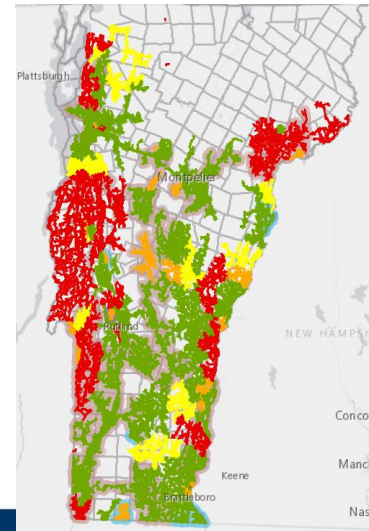
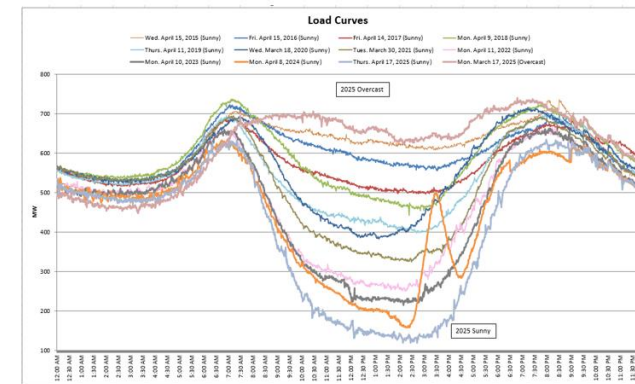
Monthly Surplus/Deficit: Scenario 2 - Variant 5 (2035)



Surplus/Deficit : Frequency vs Duration (2035)

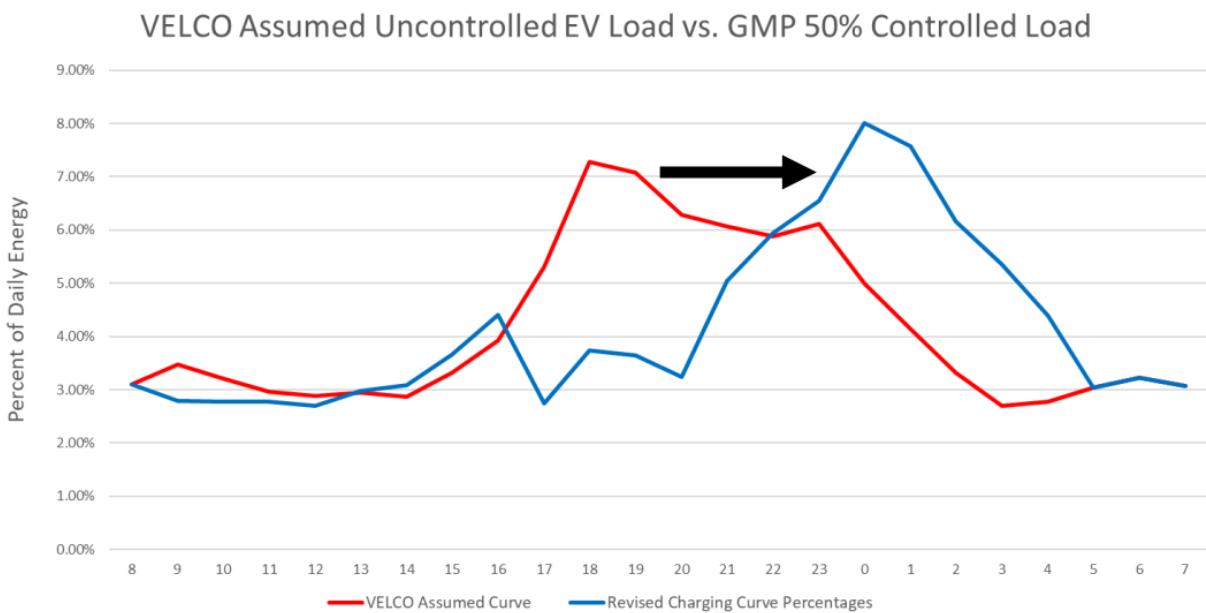


Spring load comparison

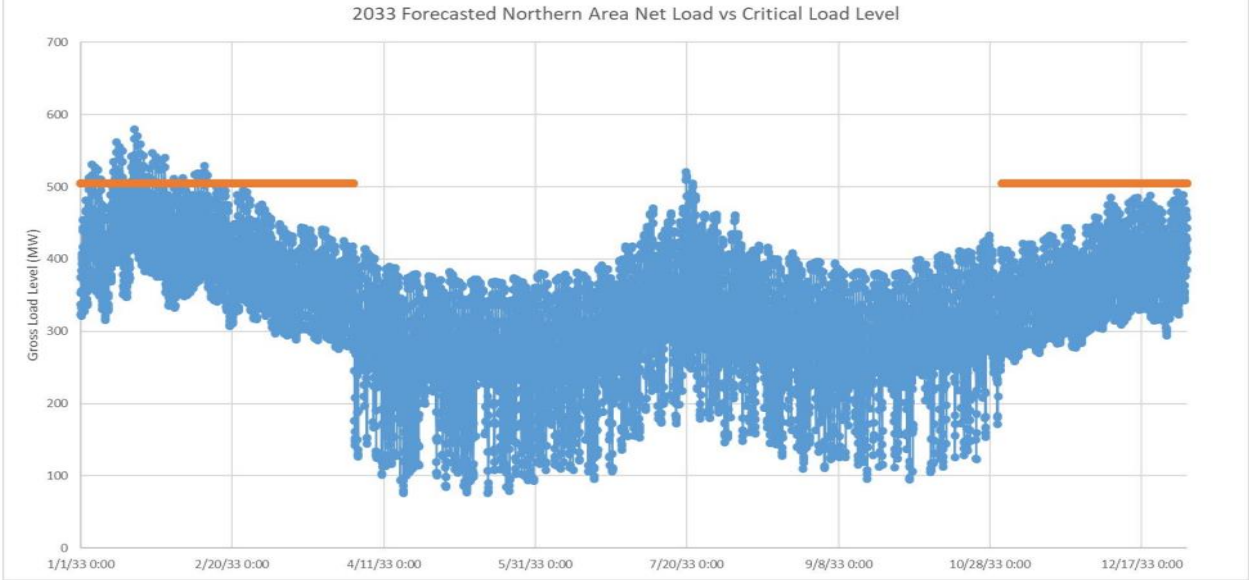


Constraints in 2024 Vermont Long-Range Transmission Plan can be avoided with Flexible Resources

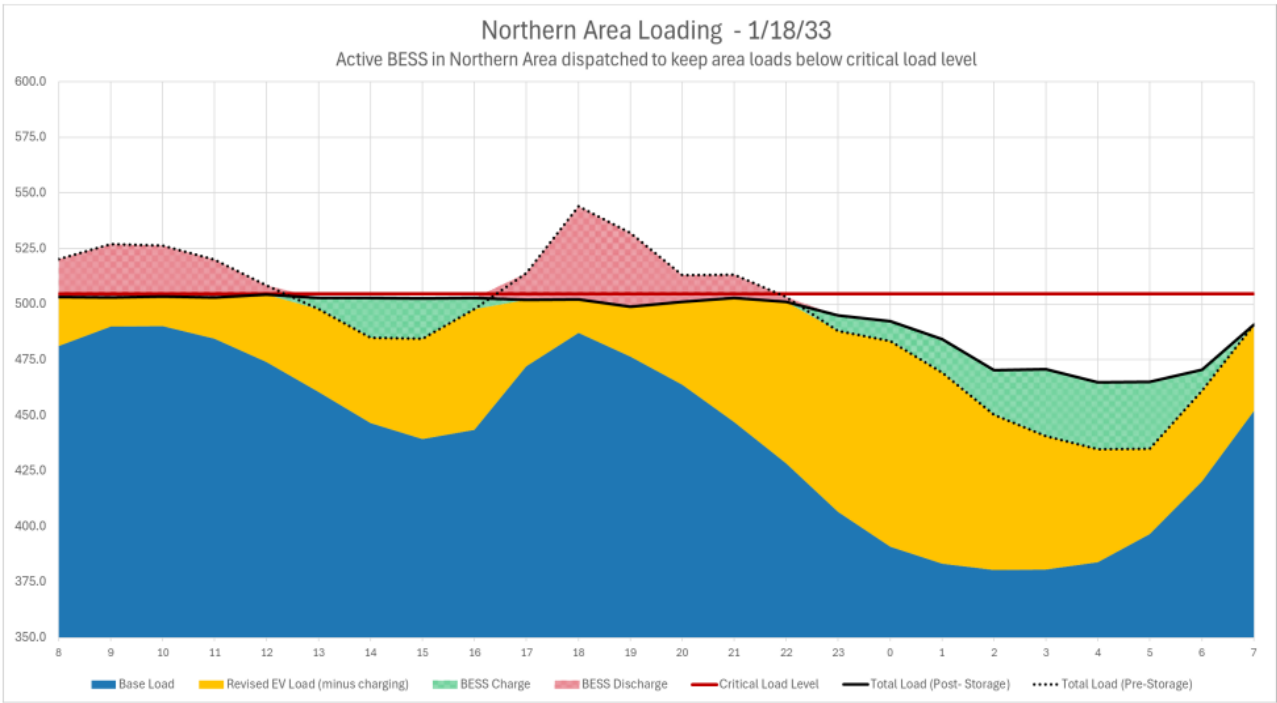
VELCO completed supplemental analysis to its 2024 Long-Range Transmission Plan to further define reliability issues on a temporal basis. Affected utilities are now analyzing least-cost non-transmission alternatives to avoid a transmission backstop solution, with indications that modified EV charging management programs and existing and proposed battery storage can solve the identified reliability issues.



GMP hypothetical EV charging curve shift from Vermont System Planning Committee



VELCO critical load level exceedances from Vermont System Planning Committee



GMP net load curves from Vermont System Planning Committee

Vermont has Significant Energy Storage and Other Flexible Resources



Energy storage

- 85 MW operational, distributed batteries (utility and residential scale, including utility-owned, Energy Storage Service Agreements, and Bring-Your-Own-Device Programs)
- Another 72 MW permitted or in permitting
- Additional 39 MW transmission-scale batteries in the ISO-NE active interconnection queue



Other flexible load management

- Time-of-use rates
- End-use rates (e.g., EV rates)
- Managed charging (active & scheduled)
- Programs
 - Commercial & Industrial Flexible Load Management (BED/VEC)
 - Heat pump peak hour reduction (GMP/BED)
 - Critical peak water heater interruption (GMP)
 - Voluntary conservation – Defeat the Peak (BED) / Beat the Peak (VEC)

Vermont Storage Deployment in New England Context

State	Goal*	Milestone	2025 summer peak (MW)**	Goal as % of 2025 summer peak	2025 deployed storage (MW)	Current % of peak
CT	1000 MW x 2030	300 MW x 2024	6596	15	41	0.6
ME	400 MW x 2030	300 MW x 2025	2026	20	63	3.2
MA	5000 MW _h x 2030	N/A	12260	10***	481	3.9
NH	N/A	N/A	2524			
RI	600 MW x 2033	90 MW x 2026	1847	32	14	0.8
VT	N/A	N/A	833		85	10.2 (18.9 including under construction/in permitting; not including proposals for transmission-level storage)

The above table shows New England State's storage deployment targets. While four states have targets, those same states are currently at far lower levels of storage deployment relative to Vermont, as measured by percent of coincident peak load. Vermont is already on pace to exceed the targets set in other states.

*MA and CT storage goals apply just to Investor-Owned Utilities ("IOUs"). ME's is unclear. RI's targets apply to the RI Infrastructure Bank.

** 2025 summer peak contribution values from ISO-NE

***Assumes all batteries are 4 hours in duration

Policy Recommendations



The revealed insights lead to the following Department of Public Service recommendations:

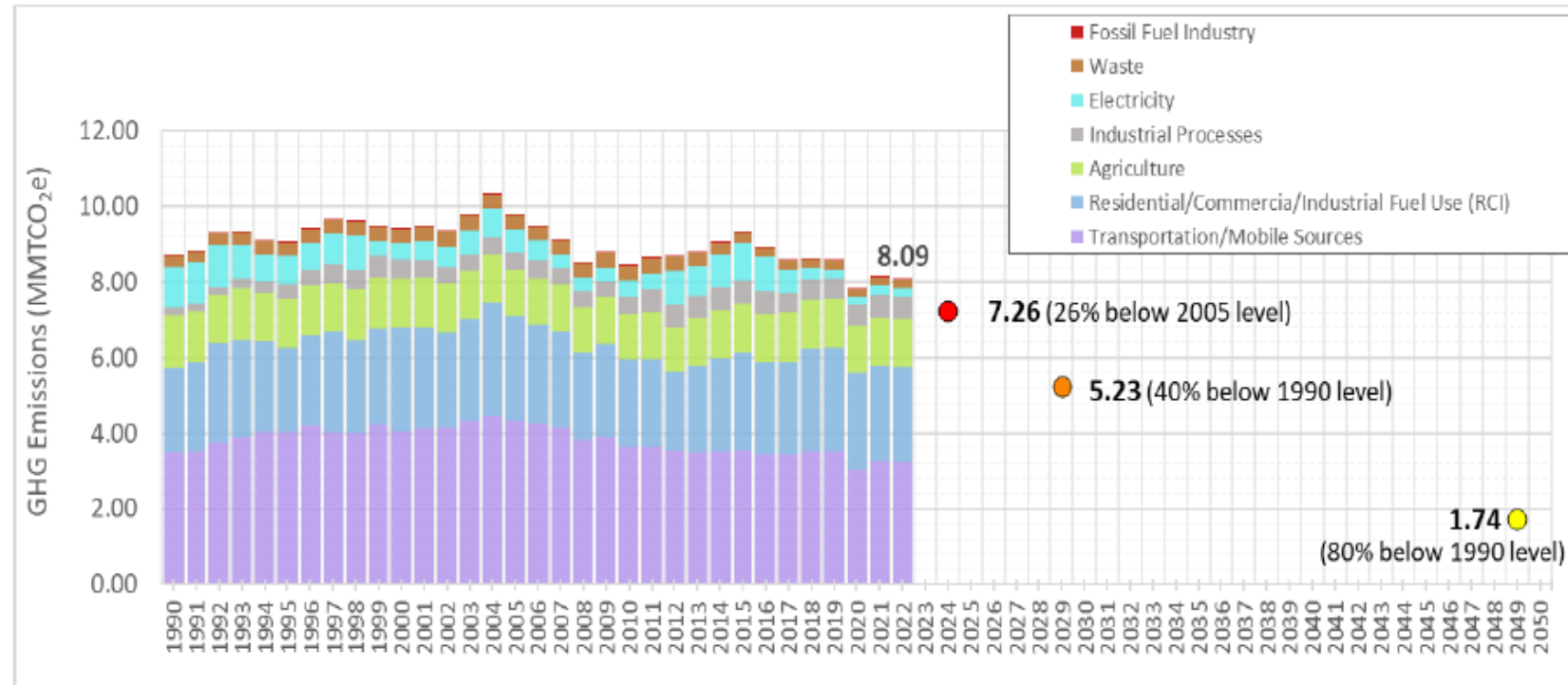
- ① Make common-sense policy reforms that reduce costs to ratepayers without impacting greenhouse gas emissions mitigation efforts, such as accounting for known purchases of clean energy within our clean energy requirements through a *Clean Energy Standard*.
- ② Review existing Renewable Energy Standard Regional requirements in light of federal policy changes reducing the amount of offshore wind and other resources expected to be available.
- ③ Better allocate current resources to low-income weatherization through Energy Efficiency Utility regulatory processes. Formally review the dozens of publicly funded programs supporting building decarbonization and energy affordability to uncover and realize efficiencies in program delivery.
- ④ Facilitate utilization of flexible distributed energy and load resources to avoid infrastructure constraints and reduce utility charges
- ⑤ Continue to advocate for transparency and accountability in regional transmission costs and create options for utilities to meet state requirements with new clean energy resources.

2. Vermont's Greenhouse Gas Emissions Inventory

Past GHG Emissions and Future Targets

Vermont's Agency of Natural Resources, provides annual estimates on the amount of greenhouse gas emissions (GHG) by sector. The [Vermont Greenhouse Gas Emissions Inventory](#) and Forecast (GHG Inventory), completed pursuant to 10 V.S.A. § 582, establishes historic baseline greenhouse gas levels and tracks changes in emissions through time to determine progress toward Vermont's GHG requirements. As in prior years, the largest emitting sectors of GHG emissions in 2022 were transportation, building energy use, and agriculture.

Vermont's GHG emissions declined slightly in 2022 (~1%), with variability across sectors. Electricity remained only a relatively small (<3%) driver of greenhouse gas emissions.



3. Federal Funding

American Rescue Plan Act (ARPA) Funds Deployed to Support Vermonters

- **\$66 Million ARPA* Funds allocated to Public Service Department via FY 2022 and 2023 Budgets**
 - \$18M to Efficiency Vermont for weatherization for moderate income households
 - \$3.5M deployed in to support flood impacted LMI households with equipment replacement
 - \$10.5M to support home electric upgrades for low and moderate income (LMI) households
 - Several million has been used to upgrade electrical service in Manufactured Housing Communities
 - \$12M to install heat pump hot water heaters for LMI households (*Switch and Save Program*)
 - \$7M for *Energy Storage Access Program* for storage systems in Vermont homes and municipal buildings and to support municipal/cooperative utilities' load management software
 - \$10M for bill discounts through utility programs (*Affordable Community Renewable Energy – ACRE*)
 - \$5M (+ \$2M 2023 add'l General Fund) to *School Heating Assistance for Renewable Energy (SHARE)*
 - \$1M Congressionally Directed Spending for *Sustainable Energy in Schools and Municipal Bldgs.*

Deployment of funds expected to conclude in 2026

**** Much of this funding was converted to General Funds in Dec. 2024***

Bipartisan Infrastructure Law (BIL)/ Infrastructure Investment and Jobs Act (IIJA) Funds Deployed to Support Vermonters

Formula Funding



\$3M IIJA funds through State Energy Program (over 5 years) to be used for:

Workforce development
Staffing support
Public engagement work



\$1.6M IIJA Revolving Loan Funds (RLF) directed by Legislature to the Dept. of Buildings and General Services to operate a revolving loan program for municipal energy projects



\$900K Energy Efficiency and Conservation Block Grant funds have been sub-granted to eligible municipalities.



\$8.4M (with additional funding expected) is being granted to Vermont utilities for grid investments to reduce the frequency & duration of outages

Inflation Reduction Act (IRA) Funds to Support Vermonters



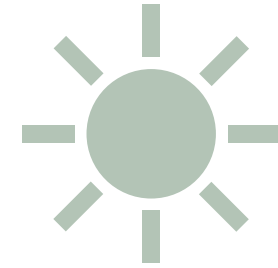
\$59 Million *Home Energy Rebate* Formula funds via Department of Energy

\$29 M for weatherizing low-income households through the Weatherization Assistance Program (HOMES)

\$29 M for rebates for electrification technologies and associated panel upgrades (HEAR)

\$1 M for Training for Residential Energy Contractors (TREC)

Home Energy Rebate programs are awaiting approval from DOE while DOE undertakes a comprehensive review of all of its programs to determine consistency with Administration priorities.



Environmental Protection Agency *Solar for All*

EPA terminated a **\$62.5 Million** Greenhouse Gas Reduction Fund grant to Vermont on August 8, 2025.

Vermont is challenging this termination both through EPA's internal appeals process and through several multi-state lawsuits against EPA. (more info on next slide)

PSD and Attorney General's Office Challenge Termination of Solar For All Program



The Vermont PSD received an award of \$62 million from EPA's Solar For All (SFA) Competition (IRA Funding) in 2024. In 2025 the PSD developed its SFA plan and three sub-programs designed to offer participants the benefits of solar providing 20% electrical bill reductions for up to 20 years. The three programs are:

- Residential Assistance In Solar Energy (RAISE) Program for single-family homes (\$14.6 million)
- Multifamily Affordable Solar Housing (MASH) Program - for multi-family affordable housing developments (\$22.3 million)
- \$20.5 million – Affordable Community Renewable Energy (ACRE) Program – expansion of ACRE.

In August of 2025, the EPA claimed they must terminate all SFA awards nation-wide and claimed Vermont had to close-out its grant by December 2025. The PSD, working with the Attorney General's Office, filed two official administrative disputes of the EPAs actions and the Attorney General's office collaborated with other states that had SFA awards in the filing of lawsuits claiming the EPA acted illegally in claiming the SFA awards were terminated. The lawsuits were filed in a federal district court and in the Federal Court of Claims. These cases are ongoing and a response from the courts is not expected soon.

Grid Resilience and Reducing Outages Program Funding to Improve the Grid

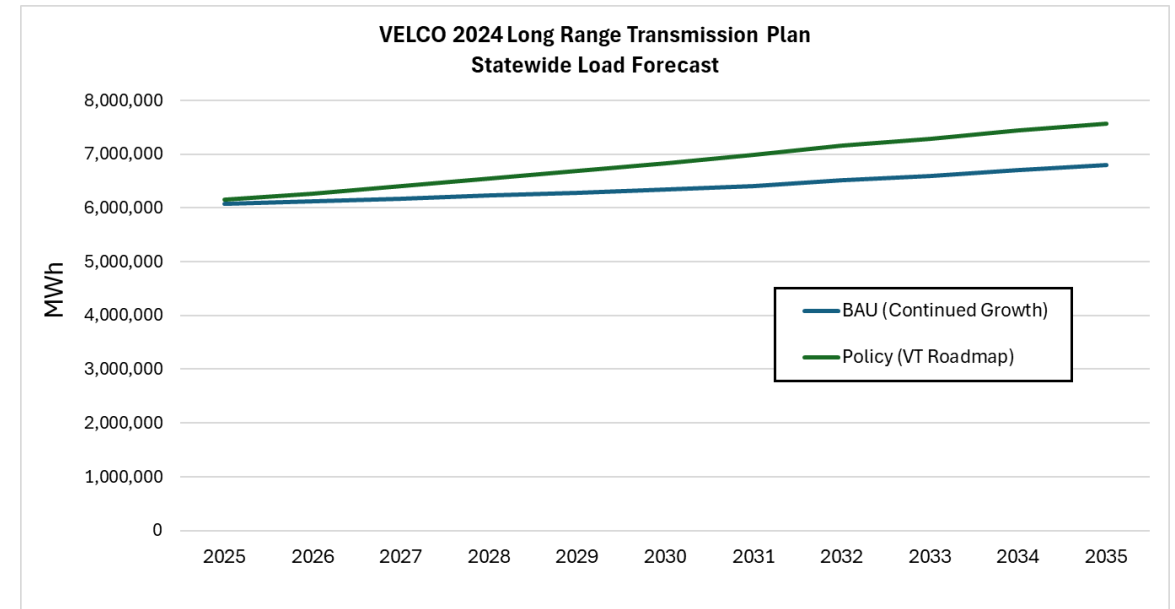
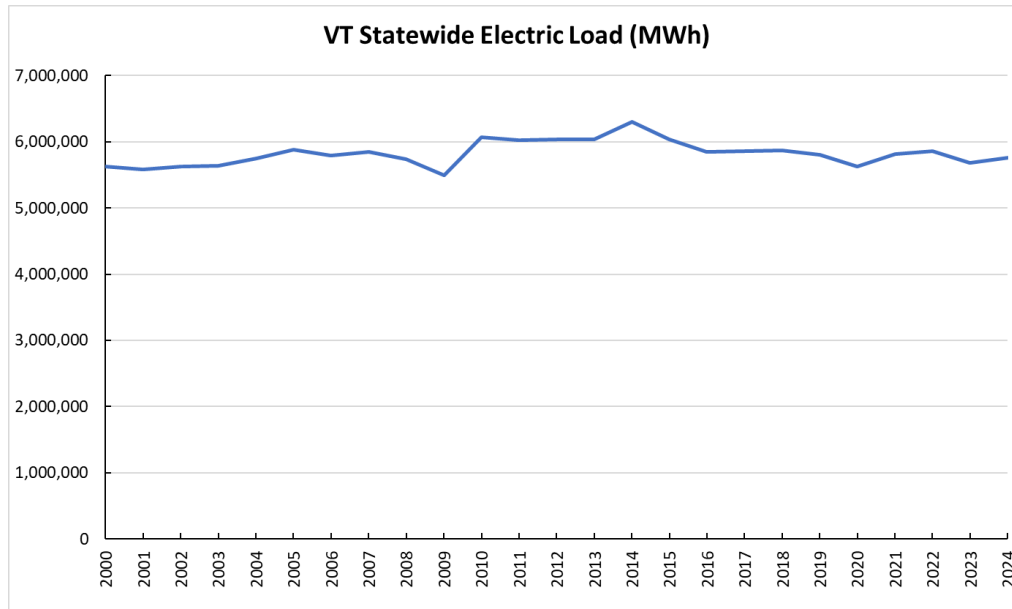
- PSD is the recipient of \$8.4 million via the five-year US Department of Energy's (DOE) Grid Resilience State Formula Grant Program
- Received allocations for year 1-3 (combined) in two tranches totaling \$8.4 million – Tranche 1 inclusive of year 1 & 2 allocations
- Additional expected allocations: \$2-4 million for years 4 & 5*
- Eligible measures will reduce the duration and frequency of electric outages
- In 2025, PSD developed a formula to allocate funding across all the Distribution Utility territories and released an RFP
- PSD received over 25 proposals and is expecting projects to commence in Spring 2026



4. Electric Sector Data and Trends

a. Electricity Demand

Annual electric demand has been flat but is expected to increase gradually over time

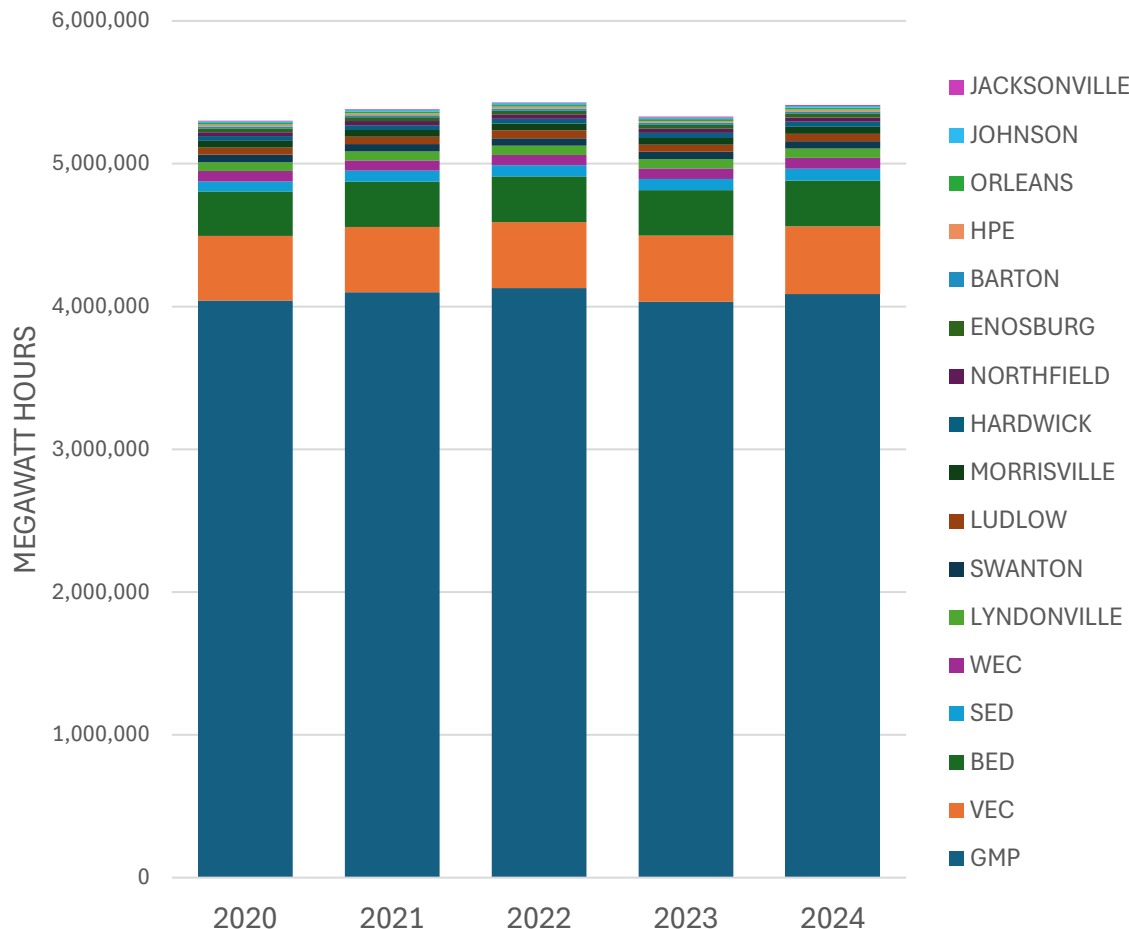


As shown in the first chart, overall demand has remained relatively flat in recent years, lower than that seen in the early 2010s, despite increases in the use of electricity for thermal and transportation uses (via heat pumps and electric vehicles, respectively). The chart on the right shows forecast annual demand scenarios developed for the Vermont Long Range Transmission Plan, detailing a possible “Business-As-Usual” scenario and a “Mitigation” scenario assuming greenhouse gas reduction requirements are achieved. Given recent federal changes to electric vehicle and electrification assumptions, expectations are now that electric demand in the near-term will be closer to the Business-as-Usual scenario.

Retail Sales by Utility

UTILITY	2020	2021	2022	2023	2024
GMP	4,040,762	4,100,502	4,129,431	4,033,028	4,085,593
VEC	453,300	455,401	461,974	462,308	475,065
BED	311,298	318,397	320,613	318,589	321,752
SED	70,121	76,965	76,965	79,920	82,089
WEC	73,165	71,503	72,593	73,651	76,002
LYNDONVILLE	59,985	62,077	64,826	64,441	64,477
SWANTON	53,737	52,571	52,383	52,243	52,925
LUDLOW	50,521	51,379	54,765	49,788	51,365
MORRISVILLE	46,065	46,390	46,532	46,761	48,700
HARDWICK	34,606	35,488	35,253	35,170	36,851
NORTHFIELD	26,929	28,363	29,372	29,116	29,486
ENOSBURG	26,393	26,602	26,812	26,920	27,368
BARTON	14,024	14,232	14,174	14,506	14,785
HPE	12,334	12,442	12,912	13,288	13,453
ORLEANS	11,949	12,859	12,835	11,931	12,600
JOHNSON	11,553	12,099	12,138	12,051	11,768
JACKSONVILLE	4,966	5,195	5,263	5,374	5,402
Grand Total	5,301,708	5,382,465	5,428,841	5,329,085	5,409,681

TOTAL RETAIL SALES BY UTILITY



Regional peak load was higher (and later) than the last 7 years, while Vermont system peak demand remains stable

The regional grid continues to reach system-wide peaks during hotter summer weather. In the past decade, peaks have shifted later into the evening over time due to the penetration of behind-the-meter solar production which reduces metered demand the most during peak daylight hours (noon and the few hours around noon). Vermont, on the other hand, has reached its peak demand during colder winter months in three of the six years prior to 2024. Most monthly peaks (not shown), which form the basis of regional transmission cost allocation, occur late in the evening near or after dark.

ISO New England System					Vermont		
Year	Peak Date	Hour Ending	System Peak Load (MW)	Vermont Coincident Peak (MW)	Peak Date	Hour Ending	System Peak Load (MW)
2018	8/29/2018	17:00	25,559	837	7/2/2018	20:00	935
2019	7/30/2019	18:00	23,929	792	1/21/2019	18:00	892
2020	7/27/2020	18:00	24,727	825	7/27/2020	20:00	890
2021	6/29/2021	17:00	25,280	796	8/26/2021	20:00	962
2022	8/8/2022	16:00	24,396	706	1/29/2022	18:00	904
2023	9/7/2023	18:00	23,623	735	2/3/2023	18:00	910
2024	7/16/2024	18:00	24,440	855	6/19/2024	21:00	877
2025*	6/24/25	19:00	26,086	832.4	6/23/25	21:00	878

*2025 data is preliminary

Vermont Peak Demand Forecast

Though the annual peak in Vermont has remained flat or even declined over the past years, that trend could change with growth in electrification of the heating and transportation sectors if the load is not effectively managed. **These charts do not include any effects of load flexibility**, which will be a critical tool in managing the impacts of peak load on the transmission and distribution systems.

Near-term EV loads are expected to be lower in the upcoming VELCO forecast due to slower adoption than previously forecasted, as reflected in GMP's 2024 forecast. Covering approximately 80% of Vermont's load, GMP's EV projections have been adjusted downwards to account for lower uptake than had been expected.

FIGURE 6 – PROJECTED VERMONT SUMMER PEAK LOAD AND ITS COMPONENT FORECASTS

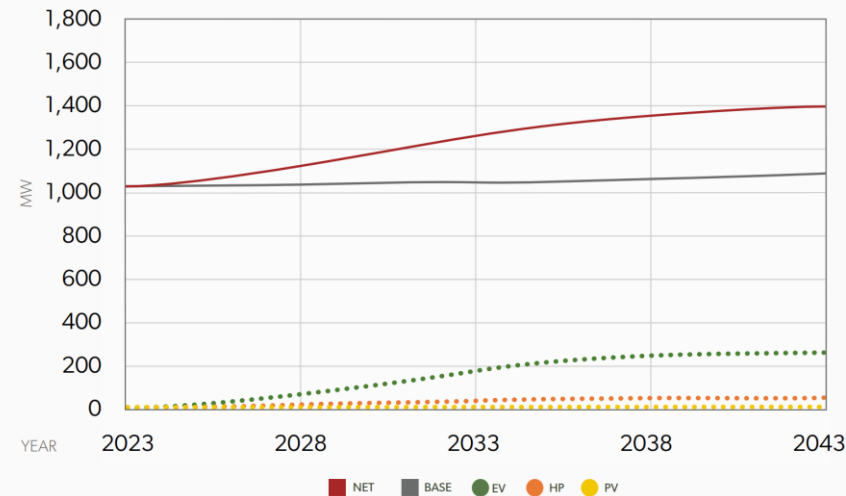
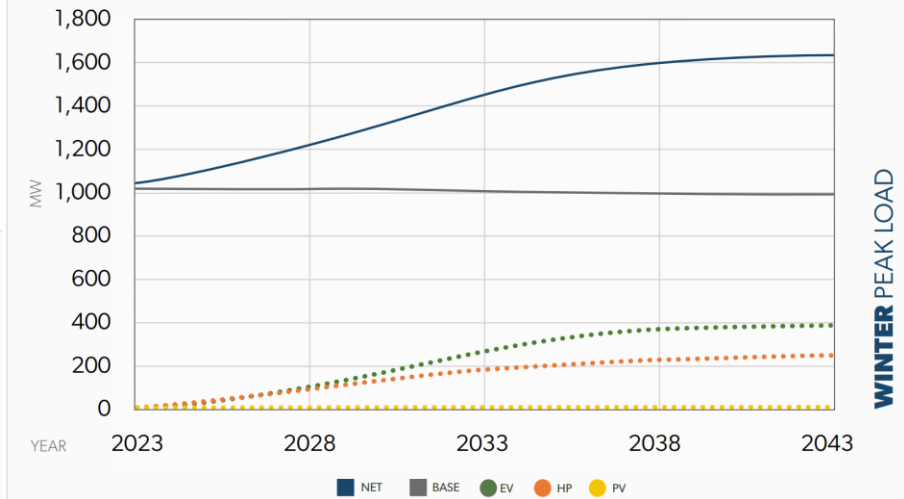
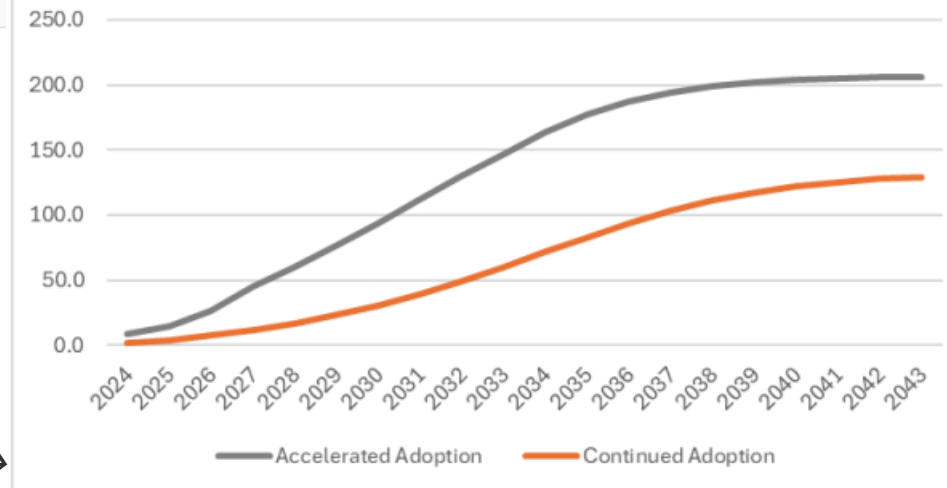


FIGURE 7 – PROJECTED VERMONT WINTER PEAK LOAD AND ITS COMPONENT FORECASTS



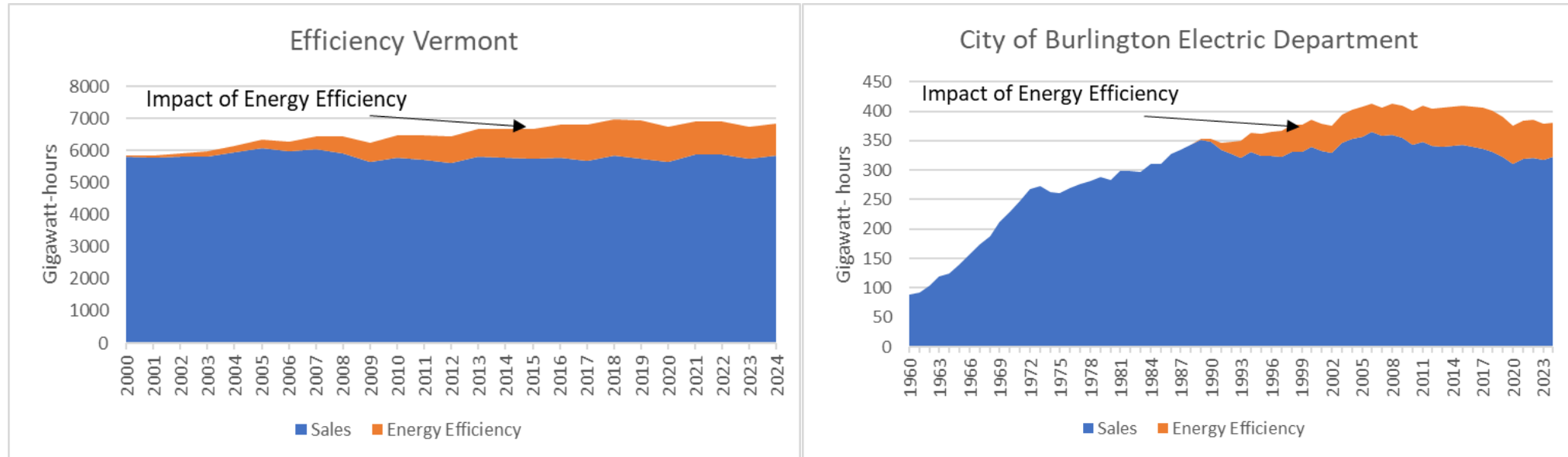
Vermont seasonal peak forecasts, from the [VELCO 2024 Vermont Long-Range Transmission Plan](#)

Peak EV charging demand uncontrolled (MW)



Green Mountain Power EV forecasts, from the GMP 2024 Integrated Resource Plan →

Energy Efficiency Impacts

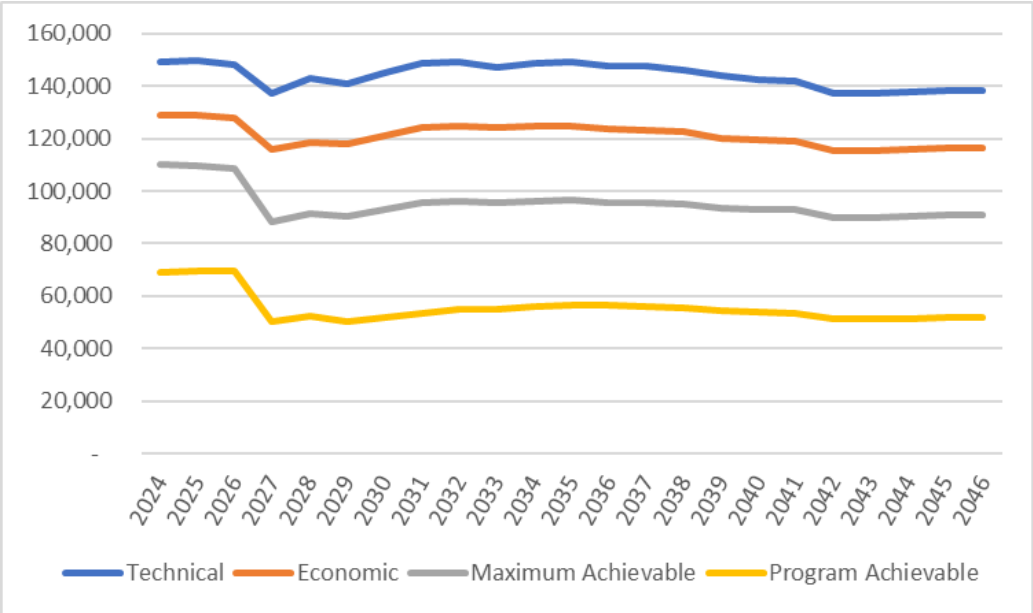


The Public Utility Commission sets EEU budgets to acquire “all reasonably available cost effective” electric efficiency, pursuant to 30 V.S.A. § 209(d) and least-cost planning principles of 30 V.S.A. § 218c. Since 2000, Vermont’s energy efficiency utilities (EEUs) have acquired electric efficiency resources that have met a significant portion of Vermont’s electric needs, at a lower cost than supply resources. The chart on the left shows Efficiency Vermont (EVT) cumulative savings over time, while the chart on the right illustrates the results of Burlington Electric Department (BED) efforts. EVT serves all of Vermont except Burlington.

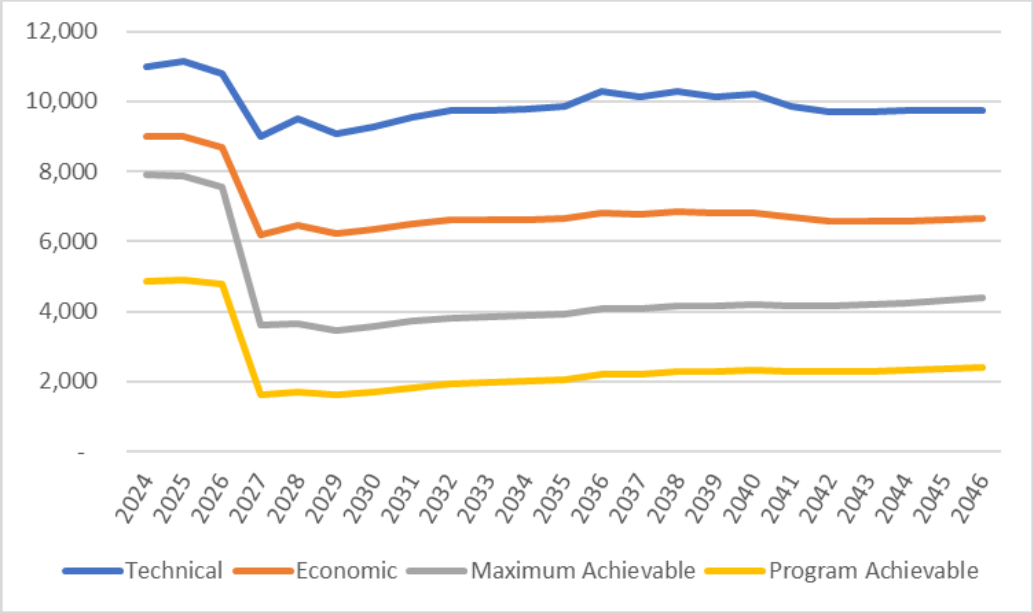
Electric Efficiency Potential declines before holding steady

The electric efficiency potential for Efficiency Vermont and City of Burlington Electric Department were re-assessed in 2025, reinforcing the previous 2022 study. Results below include potential assessed in 2022 which illustrates a marked decrease in potential from 2026 to 2027. This decrease is largely due to a reduction in potential from commercial lighting measures as the market becomes transformed. Lower levels of potential generally reflect progress Vermont has made on electric efficiency over the long term as referenced on the previous page.

EVT Potential: Incremental Annual MWh Savings



BED Potential: Incremental Annual MWh Savings



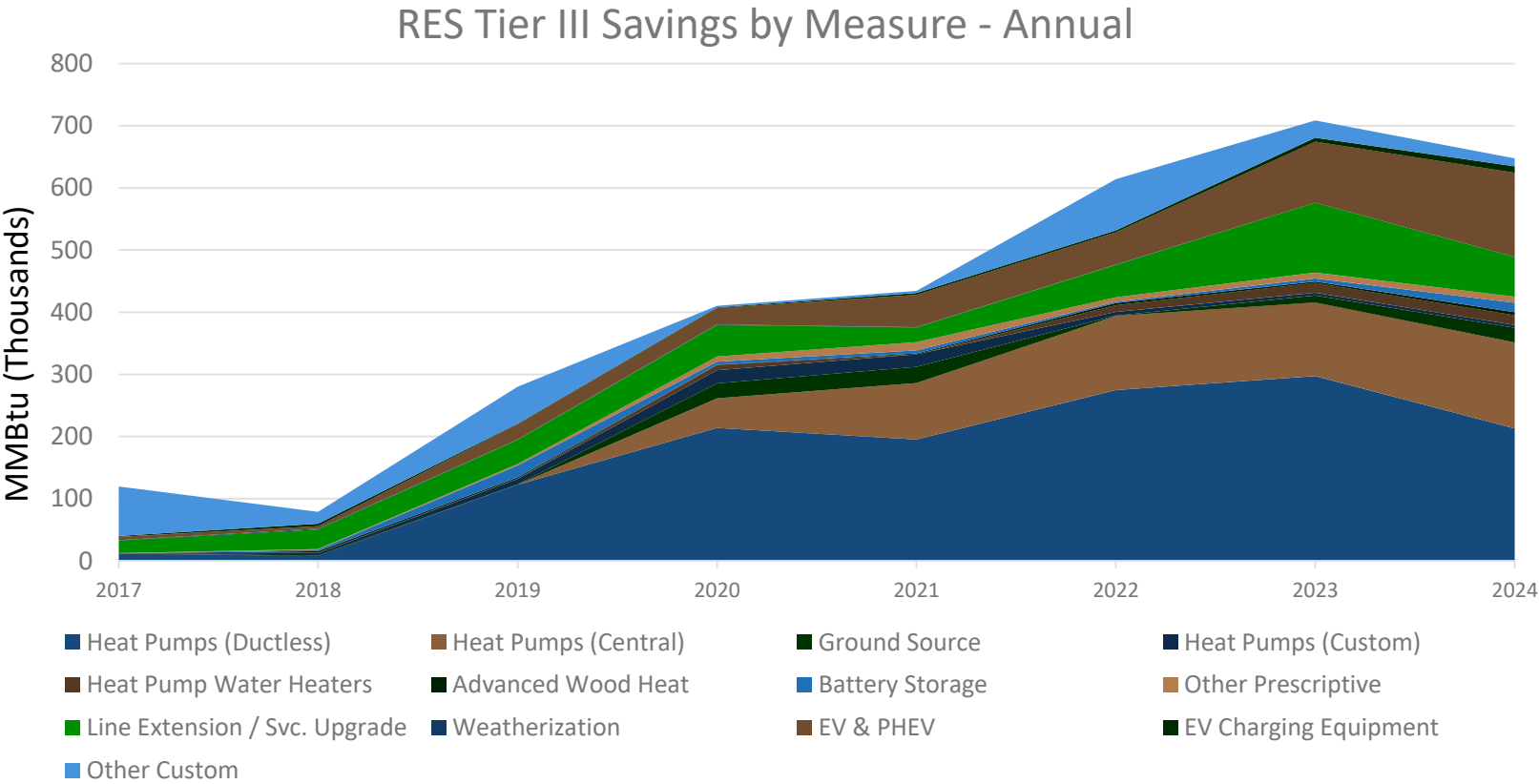
Electric Energy Efficiency Budgets will be re-set in 2026

The Public Utility Commission sets EEU budgets to acquire “all reasonably available cost effective” electric efficiency, pursuant to 30 V.S.A. § 209(d) and least-cost planning principles of 30 V.S.A. § 218c. In the Commission’s most recent Demand Resource Plan proceeding, Case No 22-2954-INV, the below electric energy efficiency budgets (program and compensation, not including evaluation and some other program administration costs) were approved for Efficiency Vermont and the City of Burlington Electric Department. The Commission's case to set budgets and performance targets for the 2027-2029 Performance Period started in 2025 with an updated Potential Study from the Department of Public Service and will be completed in 2026.

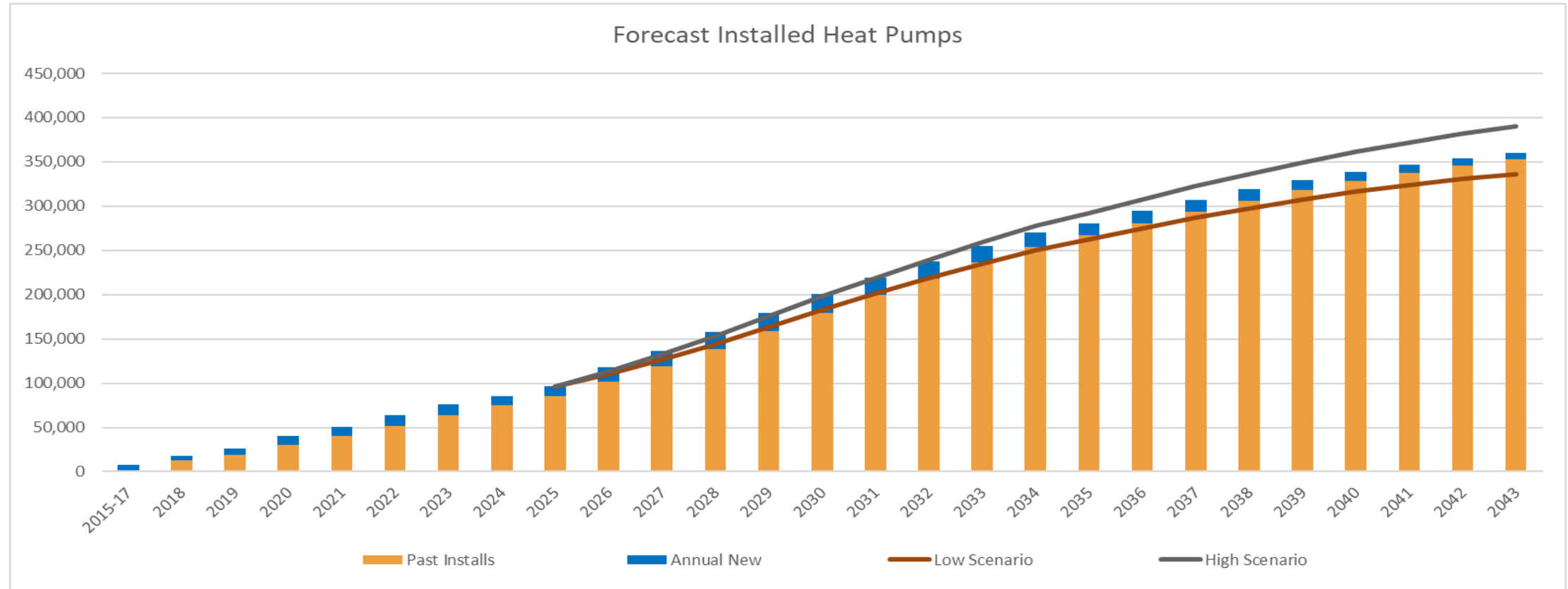
	2024	2025	2026	Total
EVT Electric Efficiency	\$46,493,225	\$47,684,264	\$48,483,214	\$142,615,704
BED Electric Efficiency	\$2,662,100	\$2,705,101	\$2,767,820	\$8,135,821
Total	\$49,155,325	\$50,389,365	\$51,251,034	\$150,751,525

Renewable Energy Standard Tier III measures dominated by Heat Pumps

Tier III of the Renewable Energy Standard requires utilities to cause fossil fuel reductions for their customers. Many of the measures taken by utilities electrify fossil fuel end uses, such as thermal demand, water heating demand, and maple sugaring operations. Measures implemented have changed over time, with the more recent mix dominated by cold climate heat pumps.



Electrification – Heat Pump adoption is forecasted to continue, but at a somewhat slower pace



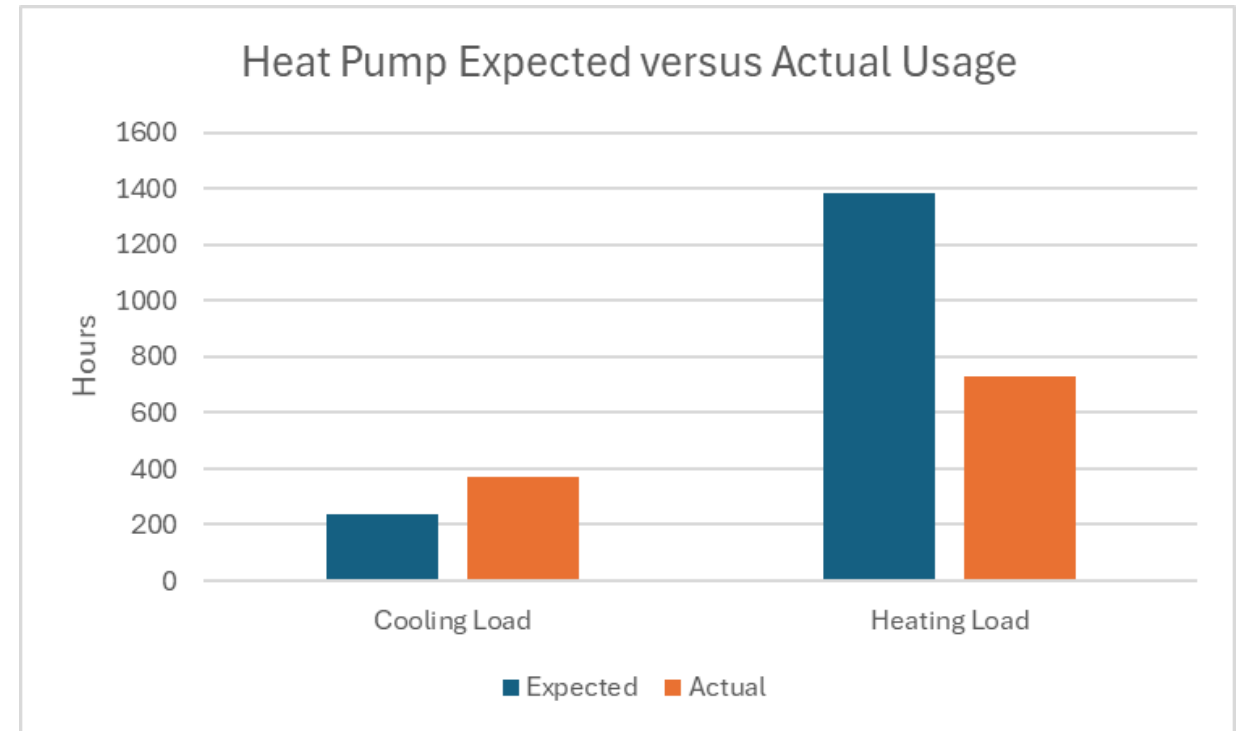
A total of 10,695 “Annual New” high efficiency CCHP units were supported by EVT and BED efficiency programs in 2025 (including units supported by DUs through Tier III programs). The 2026-2043 forecast is based on the Public Utility Commission approved Demand Resource Plan (DRP) for the EEU 2024-2026 performance period. It is anticipated that the DRP for the 2027-2029 performance period will be approved in the third quarter of 2026. It will include an updated CCHP forecast, likely to show fewer units due to the Federal Tax credits ending in 2025 and a transition to higher performing air to water “whole home” heat pump technology.

2025 Heat Pump Evaluation finds heat pumps are used less, saving less than expected

The Department commissioned Heat Pump (HP) evaluation in 2025. The initial results, using data from Advanced Metering Infrastructure (available [here](#)) found:

- Users of air source ductless mini-split HPs are switching to backup heat in winter sooner than expected resulting in **less than half of the fossil fuel displacement than was expected**. Users are also cooling more than expected in the summer.
- This is not a technology issue but related to consumer education and behavior.

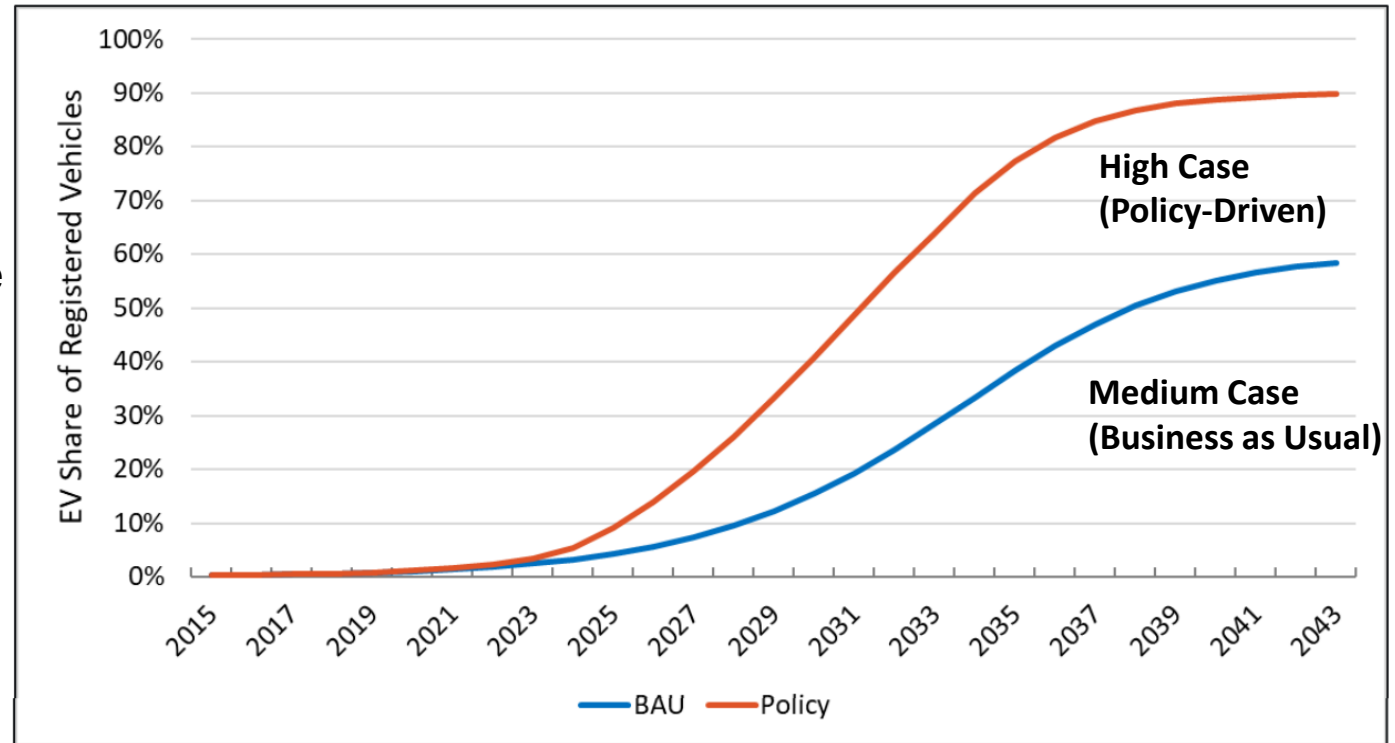
Heat pumps continue to have a role to play in reducing fossil fuel consumption and greenhouse gas emissions, but program design must be re-evaluated and appropriate savings assigned to the measures.



Light-Duty EV Adoption Forecast

Electric vehicle adoption continues to grow, but recent changes to federal incentives are expected to slow the pace.

Itron, a consultant assisting VELCO update Vermont's Long-Range Transmission Plan, prepared two scenarios to estimate impacts on the electric grid, as shown in this chart.



4. Electric Sector Data and Trends

b. Electricity Supply, Renewable Energy Standard

2025 was the first year of compliance under the new Renewable Energy Standard (RES)

Act 179 of 2024 reformed Vermont's Renewable Energy Standard, creating a pathway for the state's distribution utilities to purchase 100% of their electricity from renewable energy by no later than 2035. These reforms included:

- **Updating & Expanding the RES “Tiers”:** The Renewable Energy Standard now includes five distinct “tiers” of requirements. Act 179 of 2024 updated the requirements for Tiers I, II, and III and added new requirements under Tiers IV and V.
- **Changing the Requirements from Retail Sales to Total Load:** The initial RES placed requirements on utilities based on their annual retail sales of electricity. The reforms in 2024 shift this requirement to be on a utility's “total load”, which includes both the retail sales to their customers, any additional electricity used by the utility itself, and transmission and distribution line losses.
- **Elimination of Group Net-Metering:** Act 179 created a sunset date for the group net-metering program and tasked the Department with developing a report to make recommendations for a successor program. The report and the Department's recommendations, completed in 2024, are available on the [Department's website](#). The Legislature took no action on the Department's recommendations.

Renewable Energy Standard Update (Act 179)

The Renewable Energy Standard now includes five distinct categories (“tiers”) of requirements. These tiers are described here. The next slide ([Slide 21](#)) illustrates how these requirements will impact Vermont’s electricity supply by 2035.

Tier I: Total Renewable Energy

- **Previously** 75% of retail sales by 2032 for all utilities (Certain utilities already 100% renewable)
- **Updated:**
 - 100% of total load by 2030 for Green Mountain Power (“GMP”) & Vermont Electric Cooperative (“VEC”)
 - 100% of total load by 2035 for municipal utilities and Global Foundries (“GF”)
- **Eligible Resources** include wind, solar, hydropower, biomass, and landfill gas, among others

Tier II: Distributed Generation

- **Previously** 10% by 2032 for all utilities
 - 100% renewable utilities are exempt from Tier II
- **Updated:**
 - 20% by 2032 for GMP and VEC
 - 20% by 2035 for municipal utilities and GF
- **Eligible Resources** include new renewable energy plants that are 5MW or less, hydroelectric plants that are owned by municipal utilities and/or are Low Impact Hydropower Institute (“LIHI”) certified, or net metering that are in Vermont

Tier III: Energy Transformation

- Encourages utilities to support additional distributed generation or other projects to reduce fossil fuels consumed by their customers
- Was not substantially changed by the reform to the RES

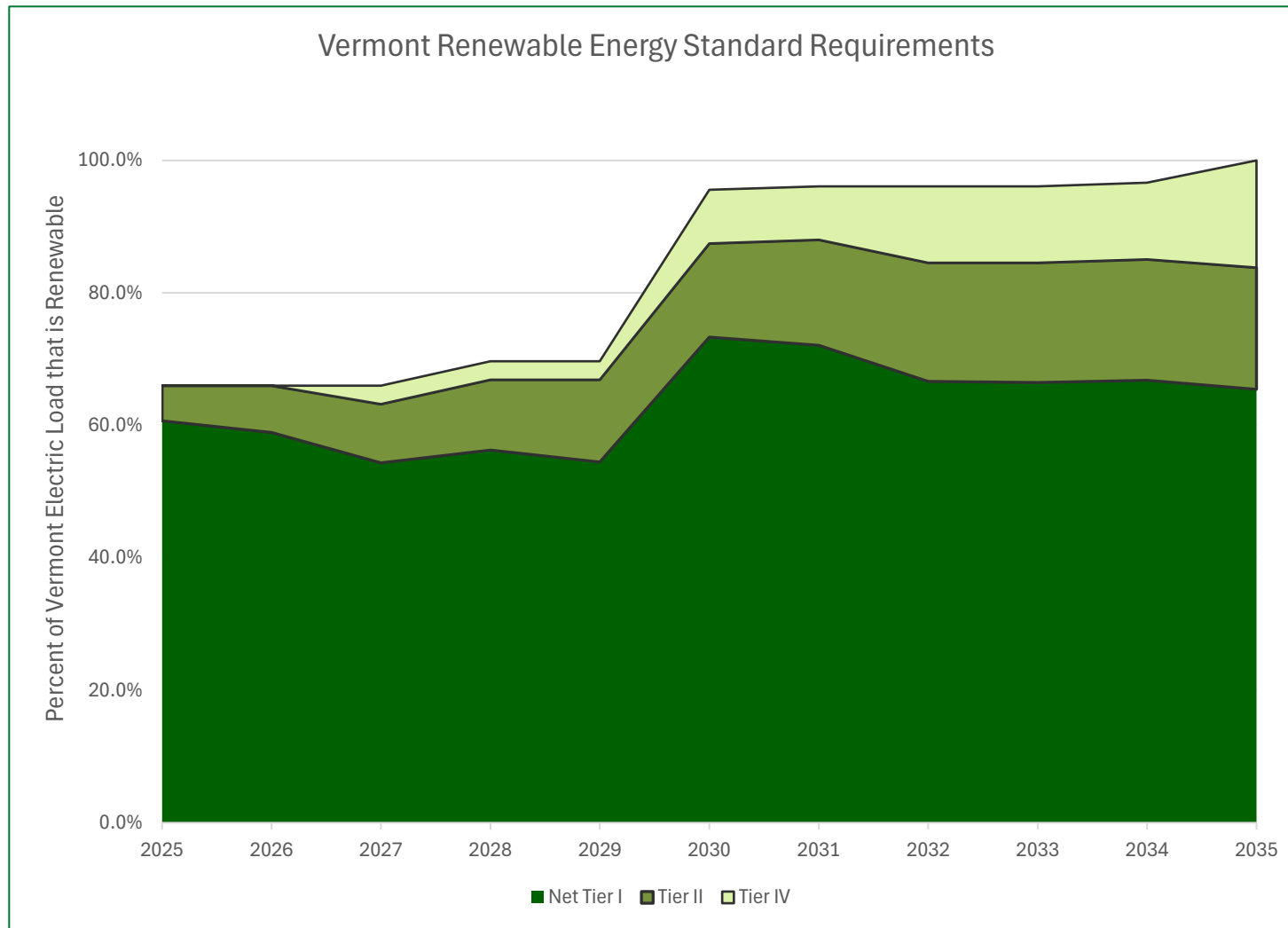
Tier IV: New Renewable Energy

- **New Category!** Seeks to encourage the use of new renewable generation (developed after January 1, 2010) to support the reliability of the ISO-New England electric system.
- **Requirements:**
 - 20% of total load by 2035 for GMP
 - 10% of total load by 2035 for VEC, municipal utilities, and GF
 - 100% renewable utilities are exempt from Tier IV

Tier V: Load Growth for 100% Renewable Utilities

- **New Category!** For utilities that are 100% renewable already (Burlington Electric Department, Swanton Electric Department, and, Washington Electric Cooperative), sets requirements for the percentage of the load growth above the 2024 baseline that must come from new or existing renewable energy.

Renewable Energy Standard Update (Act 179)



This figure illustrates how Vermont's total electricity supply will likely change between 2025 and 2035 under the new RES. However, please note:

(1) This approximates the statewide requirements for Tiers I, II and IV under the RES. Actual requirements vary by utility and therefore actual percentages will vary based on an individual utility's proportional share of statewide load.

(2) Tier V load growth requirements are not projected here using a statewide load forecast because those requirements are dependent on each existing 100% renewable utility's individual load growth projections.

2024 Renewable Energy Standard Compliance (continued)

Each distribution utility has complied with requirements under the RES.

In addition to Tier II, Washington Electric Cooperative and Hyde Park used Tier II Renewable Energy Credits (RECs) for part or all of their Tier III compliance. These RECs are counted towards their Tier III obligation and not their overall renewability as measured in Tier I/II.

Utility	2024 REC Retirements and Tier III Savings as Percent of Sales		
	Tier I	Tier II	Tier III
Barton	63.00%	5.20%	5.30%
Burlington	102.32%	0.0%	6.67%
Enosburg Falls	63.00%	4.60%	5.30%
Green Mountain Power	78.89%	5.20%	6.67%
Hardwick	63.00%	5.20%	5.30%
Hyde Park	63.00%	5.20%	5.30%
Jacksonville	63.00%	5.20%	5.30%
Johnson	63.00%	5.20%	5.30%
Ludlow	63.00%	5.20%	5.30%
Lyndonville	63.00%	5.20%	5.30%
Morrisville	63.00%	5.20%	5.30%
Northfield	63.00%	5.20%	5.30%
Orleans	63.00%	5.20%	5.30%
Stowe	63.00%	5.20%	5.30%
Swanton	100.0%	0.0%	5.30%
Vermont Electric Cooperative	80.17%	5.20%	6.67%
Washington Electric Coop	100.00%	5.20%	8.51%
Vermont Total	79.74%	4.84%	6.54%

2024 Renewable Energy Standard (RES) Performance

2024 RES Performance		
	<u>Obligations</u>	<u>Compliance Cost</u>
Tier I	3,575,072 RECs	\$5,819,104
Tier II	258,102 RECs	\$11,547,449
Tier III	354,695 Mwhe	\$18,093,959
Total Cost of Compliance		\$35,460,512
Retail Sales	5,409,543 kWh	
Rate Impact of RES Compliance	3.2%	
CO2 Reduction from RES	782,583 tons of CO2	

Note: Maximum RES costs at the Alternative Compliance Cost rates for 2024 would have been approximately \$92 million

Sources: 2024 Utility RES Compliance filings with the PUC under 25-0476-INV

2025 Consolidated Renewable Energy Standard (RES) Model Update

30 V.S.A. § 202b (e)(7)(B) calls for the Department of Public Service to complete a “Consolidated Model” that projects the impacts of the RES at least 10 years ahead, and describes several areas to be reported on, including three scenarios of results based on high, mid-range, and low energy price forecasts.

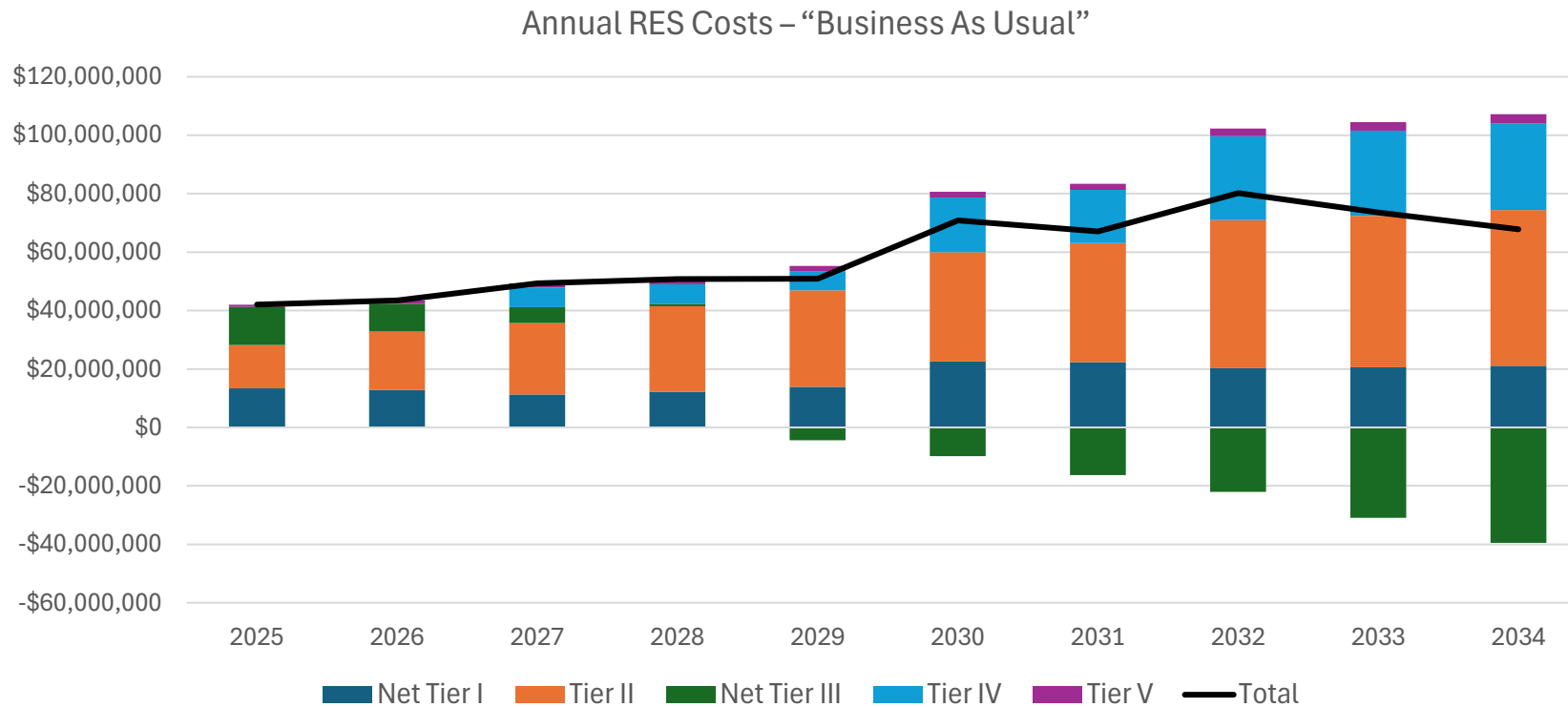
In development of the model, the Department provides an opportunity for public comment and makes the model and associated documents available on the [Department’s website](#).

BAU LOAD SCENARIO			
Energy Price Scenario	Low	Mid	High
10 Year Average Electric Rate Impact	5.91%	5.79%	6.00%
Total Energy Reduction (MMBtu)		219,380,183	
Electric Energy Reduction (MWh)		-600,478	
Fossil Fuel Reduction (MMBtu)		221,429,012	
GHG Emissions Reduction (lbsCO2)		29,904,890,130	
VT ROADMAP LOAD SCENARIO			
Energy Price Scenario	Low	Mid	High
10 Year Average Electric Rate Impact	7.16%	7.02%	7.28%
Total Energy Reduction (MMBtu)		237,758,641	
Electric Energy Reduction (MWh)		-647,458	
Fossil Fuel Reduction (MMBtu)		239,967,768	
GHG Emissions Reduction (lbsCO2)		32,292,507,444	

Note – electricity use increases result from Tier III electrification measures load building

Summary of public feedback included in “Updates Log” tab of Final model

2025 Consolidated RES Model – Business-as-Usual Forecast Cost by Tier



Note – Tier III programs build load and generate additional retail sales revenues leading to a net cost reduction over time

2024 Net-Metering Deployment: Net Metering is now well over 40% relative to peak loads

Utility	Total Installed NM (kW)	2024 Non-Coincident Peak	NM as % of Peak Load	% of Total NM Capacity	% of Retail Sales
GMP	315,821	714,149	44.22%	83.39%	75.53%
VEC	33,488	81,895	40.89%	8.84%	8.78%
VPPSA	14,355	76,490	18.77%	3.79%	6.56%
BED	6,048	61,412	9.85%	1.60%	5.96%
WEC	8,560	17,862	47.93%	2.26%	1.40%
HPE	437,838	2,904	15.08%	0.12%	0.25%

Statewide 2024 Total Net-Metering: 379 MW *

VT 7/16/2024 Coincident Peak

VT 6/19/2024 Non-coincident Peak

MW	NM % of Peak
855	44%
877	43%

**Data is from ISO-NE's Sep 2025 PP-12 Collection. Stowe Electric Department has been excluded as they refused to provide PP-12 data.*

Nearly all Net-Metering Renewable Energy Credits (RECs) are transferred to utilities

57 MW of net metering RECs were transferred to utilities in 2022-2023, according to utility filings in the 2024 Net-Metering Biennial Review.

Net Metering customers have the option to either retain their RECs, or transfer them to the utility, who is required to retire them for compliance with the Renewable Energy Standard. If a customer retains their RECs, their compensation under the net metering program is lower. Nearly all net-metering RECs available are transferred to the utility.

REC Disposition in Capacity (MW) by Net-Metering Vintage

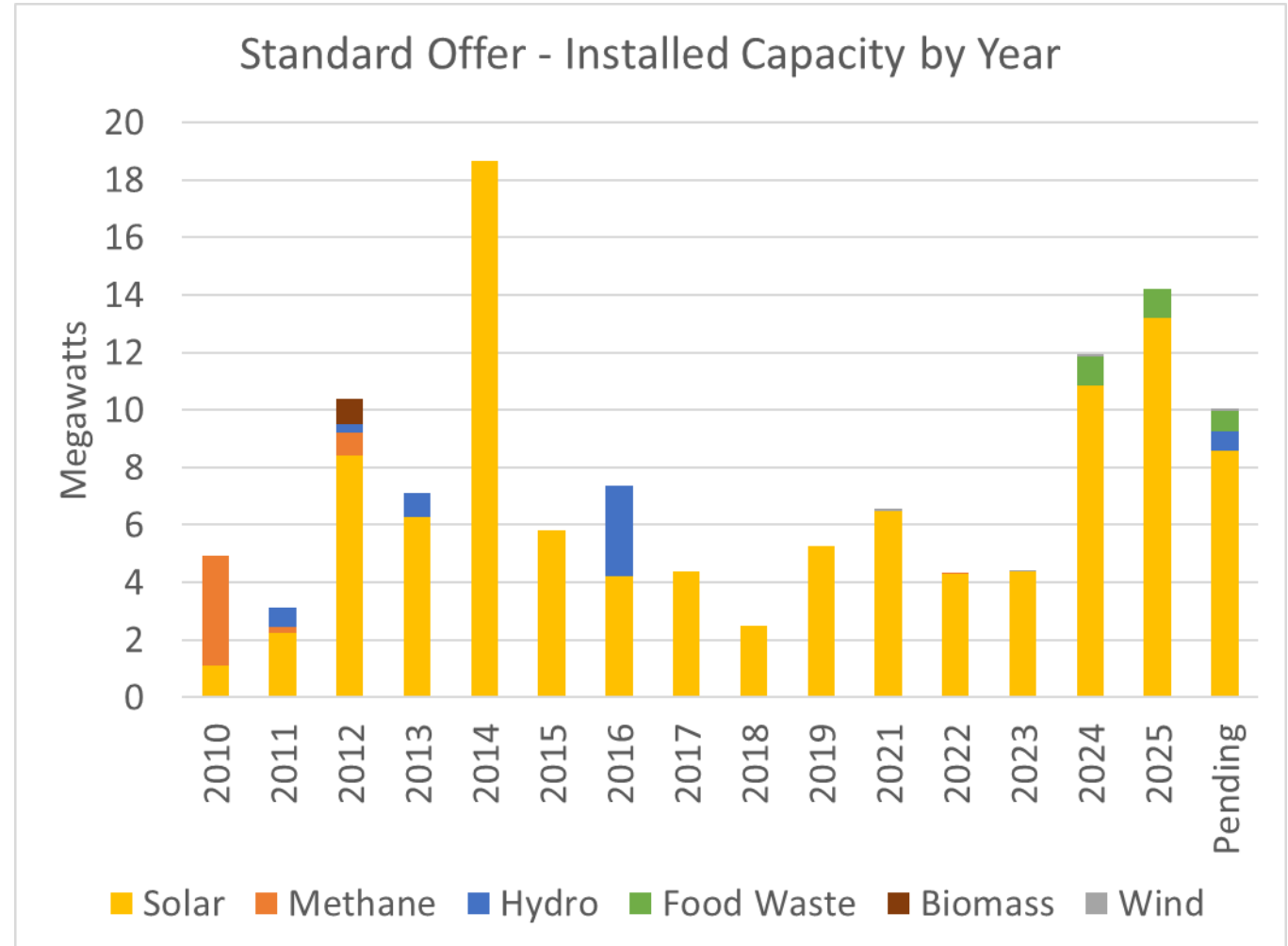
REC DISPOSITION	NM 1.0	NM 2.0	NM 2.1	NM 2.2	NM 2.3	NM 2.4	NM 2.5	Total
<input type="checkbox"/> RETAINED	0.19					0.67	0.22	1.08
2022	0.19					0.02		0.20
2023						0.65	0.22	0.87
<input type="checkbox"/> TRANSFERRED	0.00	2.02	0.00	8.40	8.23	24.24	13.12	56.02
2022	0.00	0.52	0.00	5.96	5.96	14.99	0.82	28.25
2023		1.50	0.00	2.44	2.27	9.25	12.30	27.76
Total	0.19	2.02	0.00	8.40	8.23	24.91	13.35	57.09

Standard Offer deployment nears its end

The Standard Offer program began in 2009 and has facilitated contracts for its statutory program capacity of 127.5 megawatts (“MW”) of renewable energy. This program underwent several changes since its implementation, with the most notable being an expansion of the initial 50 MW cap and a transition to a competitive procurement process. No new solicitations are expected; 10 more MW of deployment is pending.

Current Deployment:

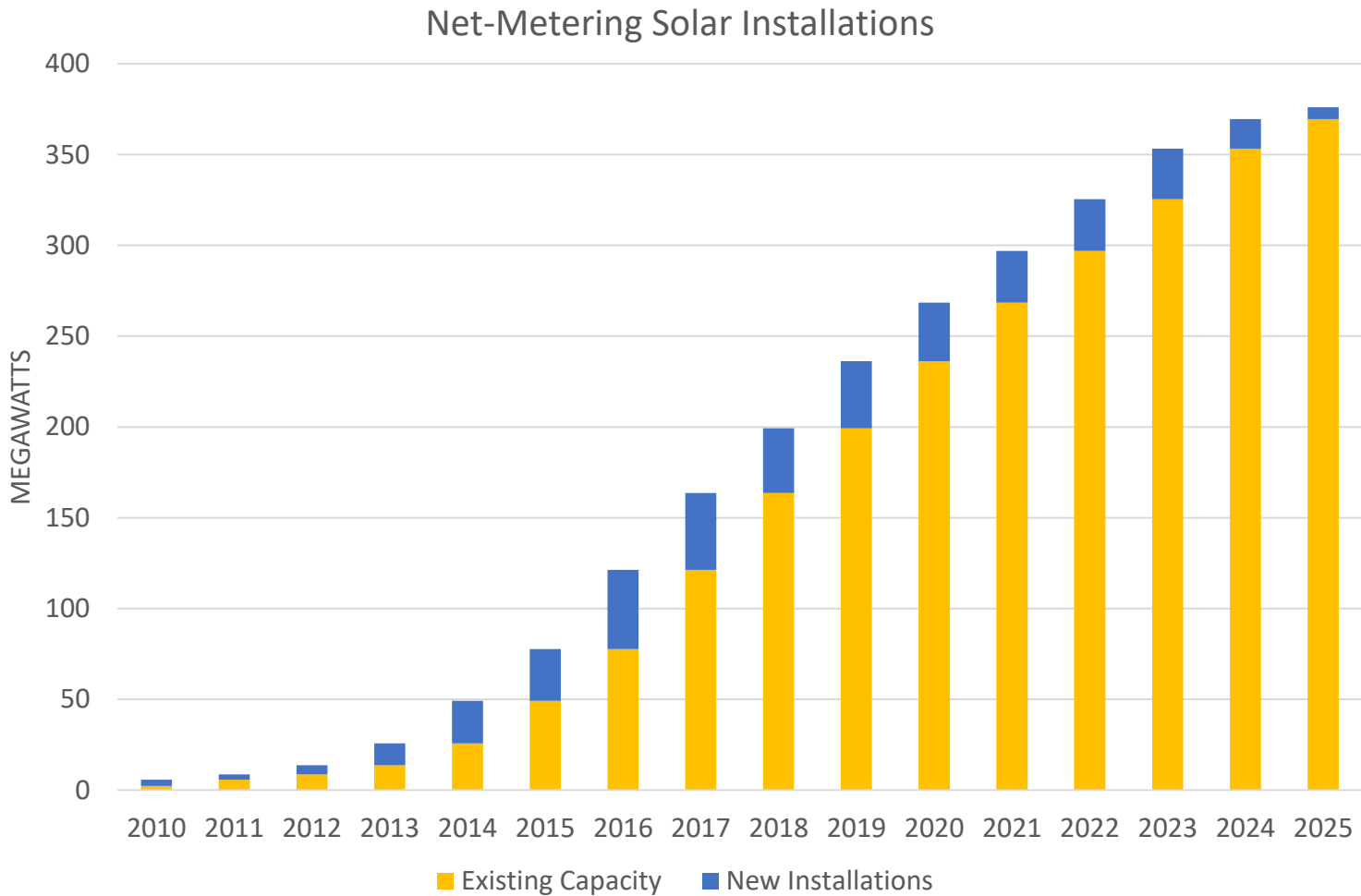
- 82 Plants (110 MW) Online as of 11/20/25
- 8 Plants (10 MW) Pending
- Estimated Annual Output: 173,532 MWH



Act 179 of 2024 Contributed to a Reduction in Net Metering Deployment, but Contracts with Utilities Will Ensure Requirements are Met

Act 179 of 2025 revised the Renewable Energy Standard, increasing the amount of new renewable Vermont based generation. Act 179 also eliminated virtual group net metering. The reduction in net metering has no impact on the amount of total renewable generation because the RES sets the pace of deployment.

In recent months, utilities have filed notices for contracts with developers for a significant amount of new renewable generation – 59 MW filed in 2025.



*Derived from September 2025 utility PP-12 submissions to ISO-NE (excluding Stowe Electric Department, which refused to provide this data to the Department)

Affordable Community Renewable Energy (ACRE) Program is being deployed

\$10 million was granted to the Public Service Department for “the Affordable Community-Scale Renewable Energy (ACRE) Program...to support the creation of renewable energy projects for Vermonters with low-income” :

- Distribution Utilities (DU) developed four subprograms: Green Mountain Power, Vermont Public Power Supply Authority, Vermont Electric and Washington Electric Cooperatives, and Stowe Electric Department
- Benefits delivered as monthly on-bill credit to eligible customers – 185% Federal Poverty Guideline
- Credits range \$12-45 monthly savings each of the 8,000 participants for 5-10 years - \$240-500 annual savings
- Each DU subprogram serves as a pilot, ideally leading to a future statewide low-income energy assistance program
- Provides a model for alternative to net-metering
- Currently providing benefits to more than 1,700 participants with other projects coming on-line to deliver more energy burden reductions for Vermonters



4. Electricity

c. Security, Reliability, and Resilience

Winter Energy Security

Over the past decade, many fossil and nuclear generating units have been retired from ISO New England's system, increasing reliance on natural gas (methane) as a generating resource. Natural gas pipeline import capability in New England can become constrained in the winter as gas for electricity generation competes with demand for heating purposes in other New England states. As a result, when there is a prolonged cold snap and home heating requires more natural gas, New England risks electric supply shortages. (Vermont Gas is supplied by a Canadian pipeline and its load does not impact the New England electricity prices.) **With milder temperatures projected for this winter, the likelihood of such an event is diminished.**

ISO New England published its [seasonal outlook](#) for the 2025-2026 winter regarding system readiness. ISO-NE anticipates that there will be sufficient generation resources to meet consumer demand this winter with forecasts slightly above average temperature. This winter will be the first with no out-of-market programs in place to support reliability, with ISO-NE having implemented the Day-Ahead Ancillary Services Initiative (DASI), a market program to address daily operational reliability. Prior years winters had seen the retention of the Mystic station and the use of the Inventoried Energy Program. DASI has resulted in significantly higher costs than was expected, with approximately \$20 million in charges to Vermont distribution utilities (VDUs) since March of 2025.

This new market is driving costs. The Department continues to explore with the New England States Committee on Electricity, Vermont Utilities, and ISO-NE evaluation of implementation of the program, and whether additional reliability has really been secured for the significant cost.

Increased Storm Frequency and Intensity has increased Vermont's focus on Resilience

Utilities and stakeholders are increasingly focused on resilience (preparing for, withstanding, and recovering from extreme weather), including through system investments (increased vegetation management, line relocation, line hardening, line undergrounding, and deploying islandable energy storage) as well as improving short/mid-term winter weather forecasting efforts, preparatory exercises, and storm response practices

State Government also continues it's emphasis on resilience, through coordination of the State Energy Security and Hazard Mitigation Plans. It also substantially participates in development of State Resilience Implementation Strategy and the Climate Action Plan.

In 2025, the Public Service Department (PSD) petitioned the PUC to open a Resilience Proceeding (25-0339-PET). With technical assistance from Lawrence Berkeley National Lab & UT-Austin, the PSD held a series of working groups on resilience planning, valuation, & measurement.

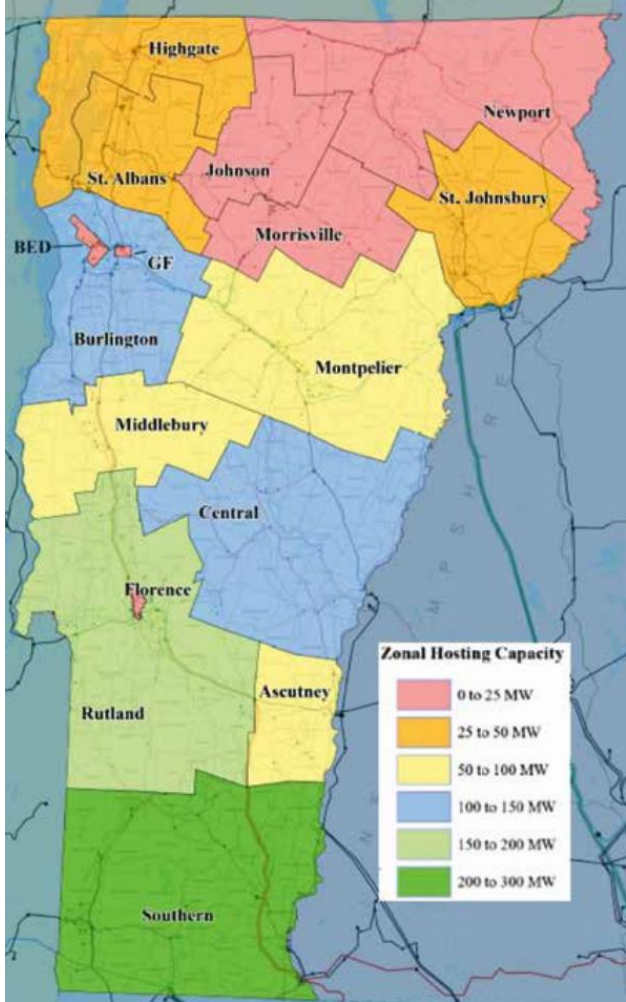
The draft recommendations are expected to include:

- Updated statutory changes and energy plan guidance to incorporate robust resilience planning into Integrated Resource Plans (IRPs);
- For utilities proposing significant resilience investments: requirements and guidance for cost-benefit analysis.
- For utilities generally: requirements and guidance for adequate least-cost evaluation of resilience needs and strategies in IRPs, including evaluation of threats, hazards, and system vulnerabilities, and evaluation of relative costs and benefits of potential alternatives to inform selection of least-cost solution; and
- Revisions to Rule 4.900 (Outage Reporting) to better define adequate service, capture impacts from severe storms and other resilience events, capture the range of customer experiences, and refine the performance targets incorporated in Service Quality and Reliability Plans.

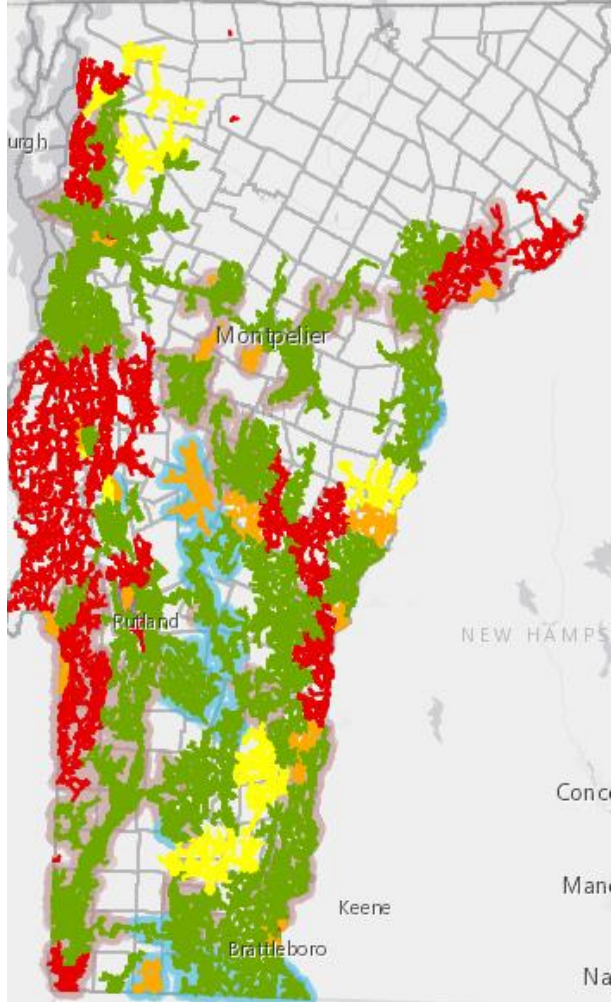


Credits from top, clockwise: David Young/WEC, GMP, GMP

Generation Constraints



Transmission hosting capacity by region from 2024 VELCO Long-Range Transmission Plan



GMP distribution system hosting capacity from Green Mountain Power Solar Map

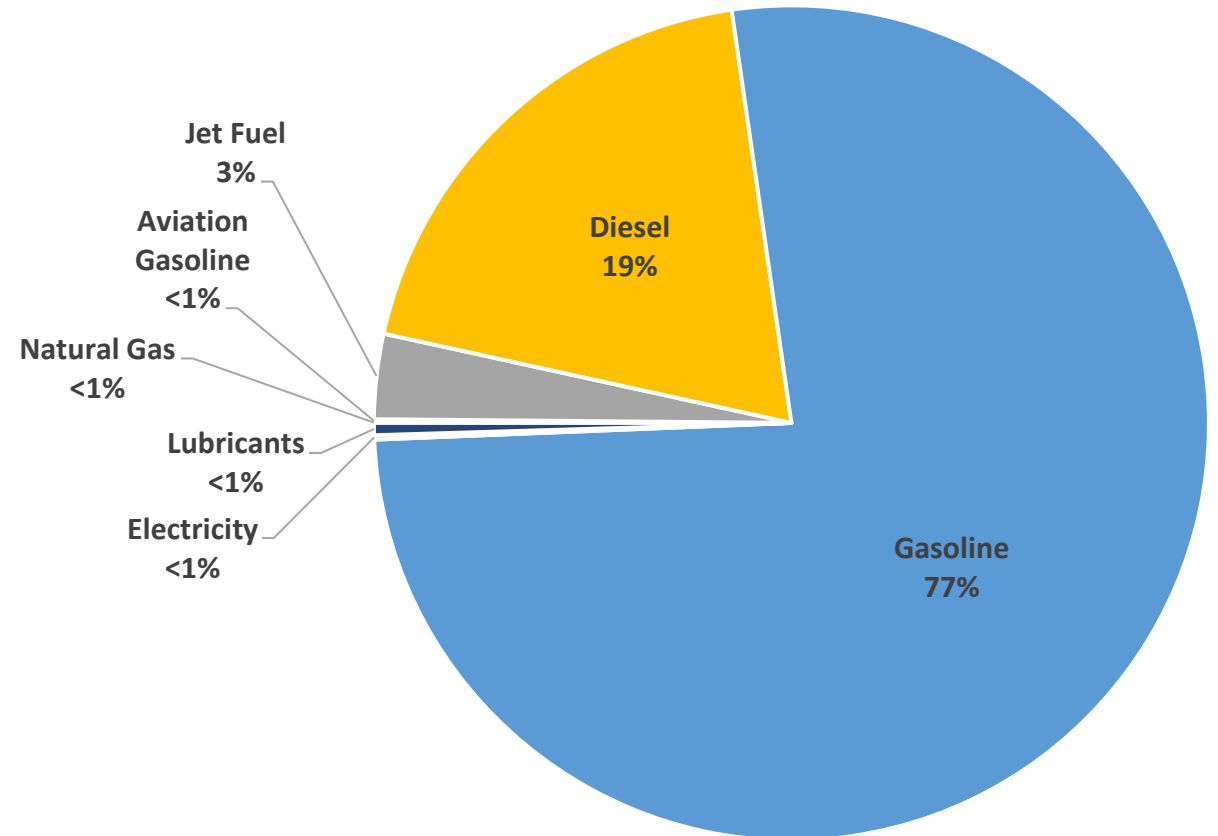
Vermont has experienced a high rate of growth in distributed energy resources, specifically in the deployment of solar installations. Having seen almost 50 megawatts (MW) of small-scale solar installations each year for the better part of the past decade, and with total Distributed Energy Resource (DER) capacity close to 600 MW, there are certain parts of the Vermont grid that are saturated with generation resources. Particularly in western Vermont, several distribution substations are no longer able to accommodate the connection of additional distributed generation resources above a certain size. Reverse power flow from these resources would exceed utility system equipment ratings. Additionally, a transmission constraint in the northern part of Vermont, in an area referred to as the Sheffield-Highgate Export Interface, means that utility-scale generation within this area is subject to limits and curtailment by the ISO-NE system operator to maintain system reliability. Curtailment events have been lessened in the past year due to lower import levels from Hydro Québec over the Highgate converter. Affected utilities have reduced the fee assessed on interconnecting generation projects accordingly, with a tariff-based approach yet to be implemented.

5. Transportation Sector Data and Trends

Transportation Energy Consumption by Fuel Type

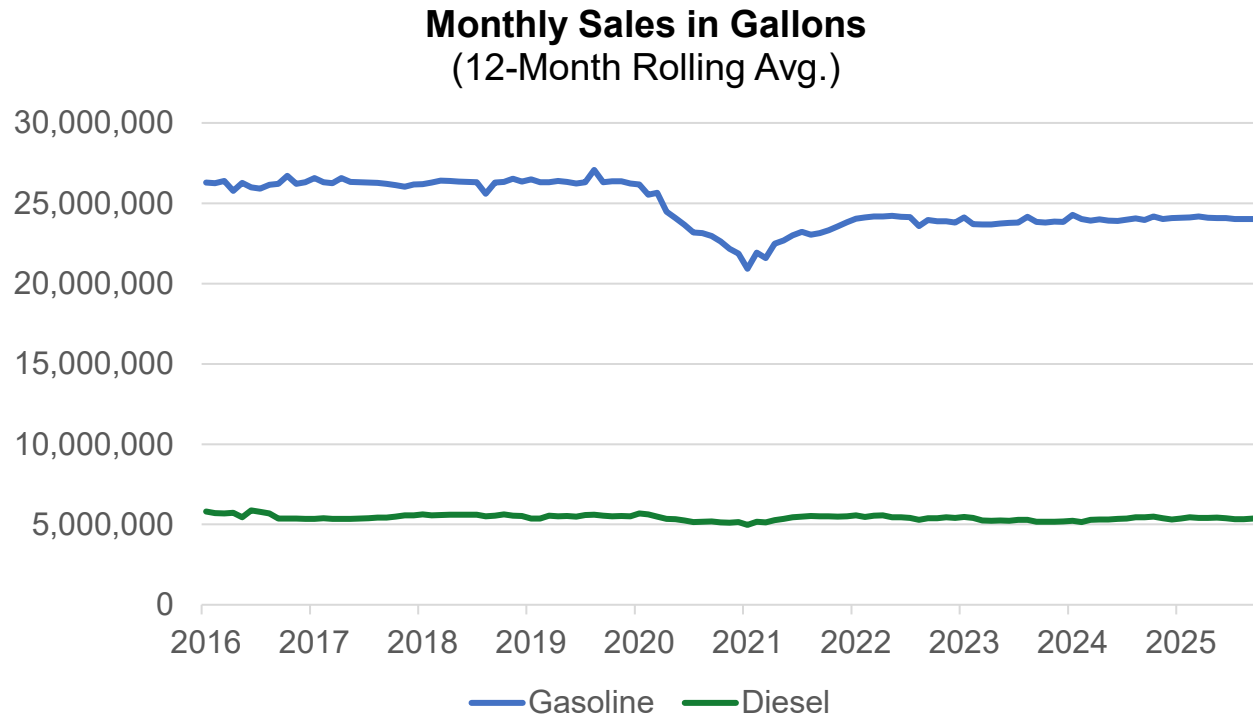
Gasoline and diesel account for the vast majority of transportation energy fuel. Gas consumption peaked in 2005 and has declined since, largely as a result of more efficient vehicles. Diesel consumption has remained level.

While electric vehicle adoption is growing, their relatively small number and overall efficiency mean that EVs still consume less than 1% of transportation energy.



Source: US Energy Information Administration, SEDS Table C8 and Table N6 for 2023. Residual fuel oil and hydrocarbon gas liquids are not shown.

Gasoline and Diesel Sales, 2016-2025



Gasoline and diesel taxes and assessments account for 29% of Transportation Fund revenues.

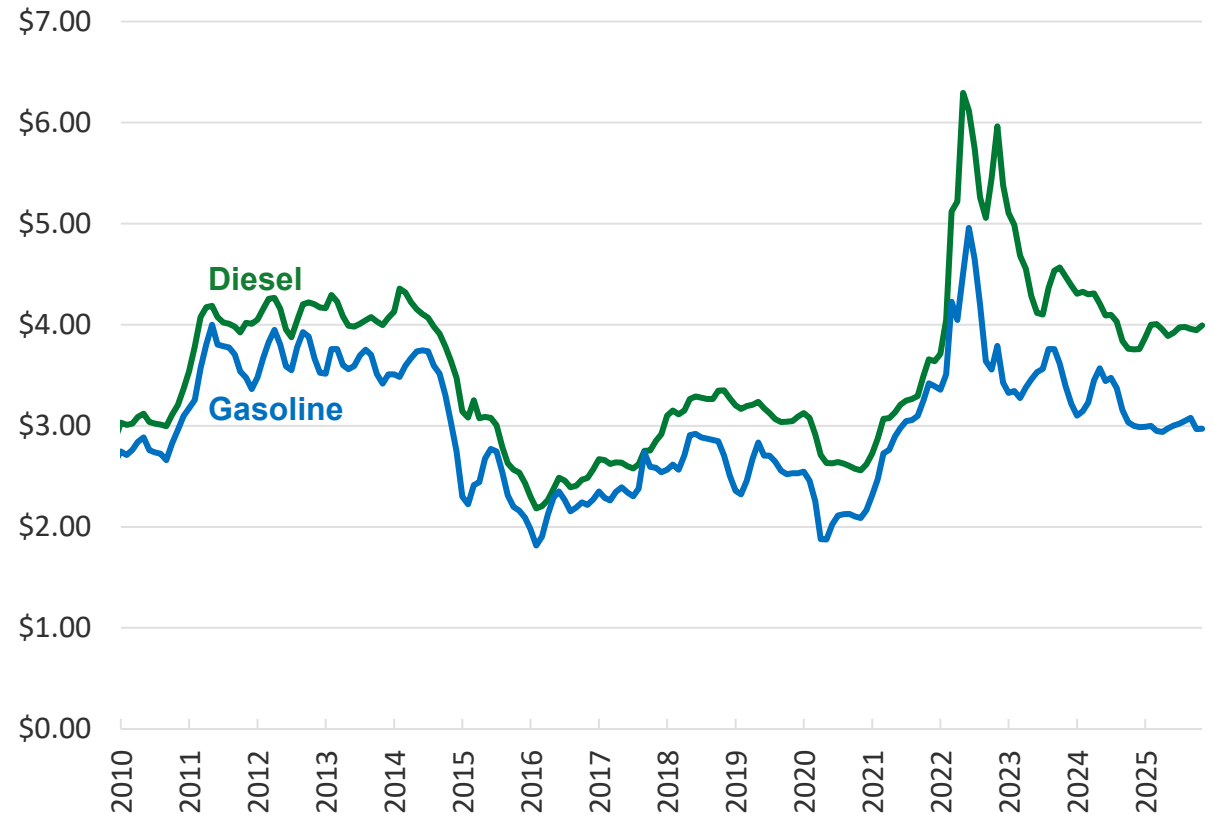
While diesel consumption and by extension tax revenue remain stable, Vermont gasoline consumption has not returned to pre-pandemic levels.

Source: Joint Fiscal Office, July (FY25 revenue forecast) and December 2024 (sales data).

Gasoline and Diesel Retail Prices, 2010-2025

Although gasoline and diesel prices are both based on the global market for crude oil, other factors influence the price that consumers pay at the pump. These include refining capacity, inventories at regional ports, and local retail competition.

By the end of 2025, gasoline and diesel prices had fallen from the high prices of 2022 but remain slightly higher than the ten-year average.







Source: US Energy Information Administration for PADD 1A (New England). Monthly regular gasoline (all formulations) and ultra-low sulfur diesel prices are shown.

Enforcement of Clean Cars & Trucks Rules to Advance Low- and Zero-Emissions Vehicle Adoption Paused

Vermont's Advanced Clean Cars II and Advanced Clean Trucks regulations, adopted in December 2022, require vehicle manufacturers to deliver an increasing percentage of zero-emission vehicles from model years (MY) 2026 to 2035. After 2035, sales of all new light-duty vehicles delivered are required to be zero-emissions, while 40-75% of medium- and heavy-duty vehicles (depending on class) are required to be zero-emissions.

In May 2025, Governor Scott issued an Executive Order pausing enforcement of the rules. In June 2025, the federal government revoked California's EPA waiver, on which Vermont relies upon for authority to enforce its rules. States have challenged this revocation, with hearings set in 2026.





Vehicle Class	MY 2026 Requirement for New Vehicle Sales or Deliveries	MY 2035 Requirement for New Vehicle Sales or Deliveries
Cars & Light Duty Trucks 	35%	100%
Class 2b-3 Large Pickups & Vans 	10%	55%
Class 4-8 Straight Trucks & Buses 	13%	75%
Class 7-8 Tractors 	10%	40%

Transportation Carbon Reduction Strategy

Completed in November 2023 for the Agency of Transportation (AOT), the Carbon Reduction Strategy provides direction for spending for the IIJA Carbon Reduction Program federal funds to reduce transportation sector emissions.

While federal funding is insufficient to implement all elements, the Strategy is be used to shape the Capital Program for Vermont's transportation infrastructure and inform other policies. To date, the Agency has allocated \$26.6M of the available \$32M.

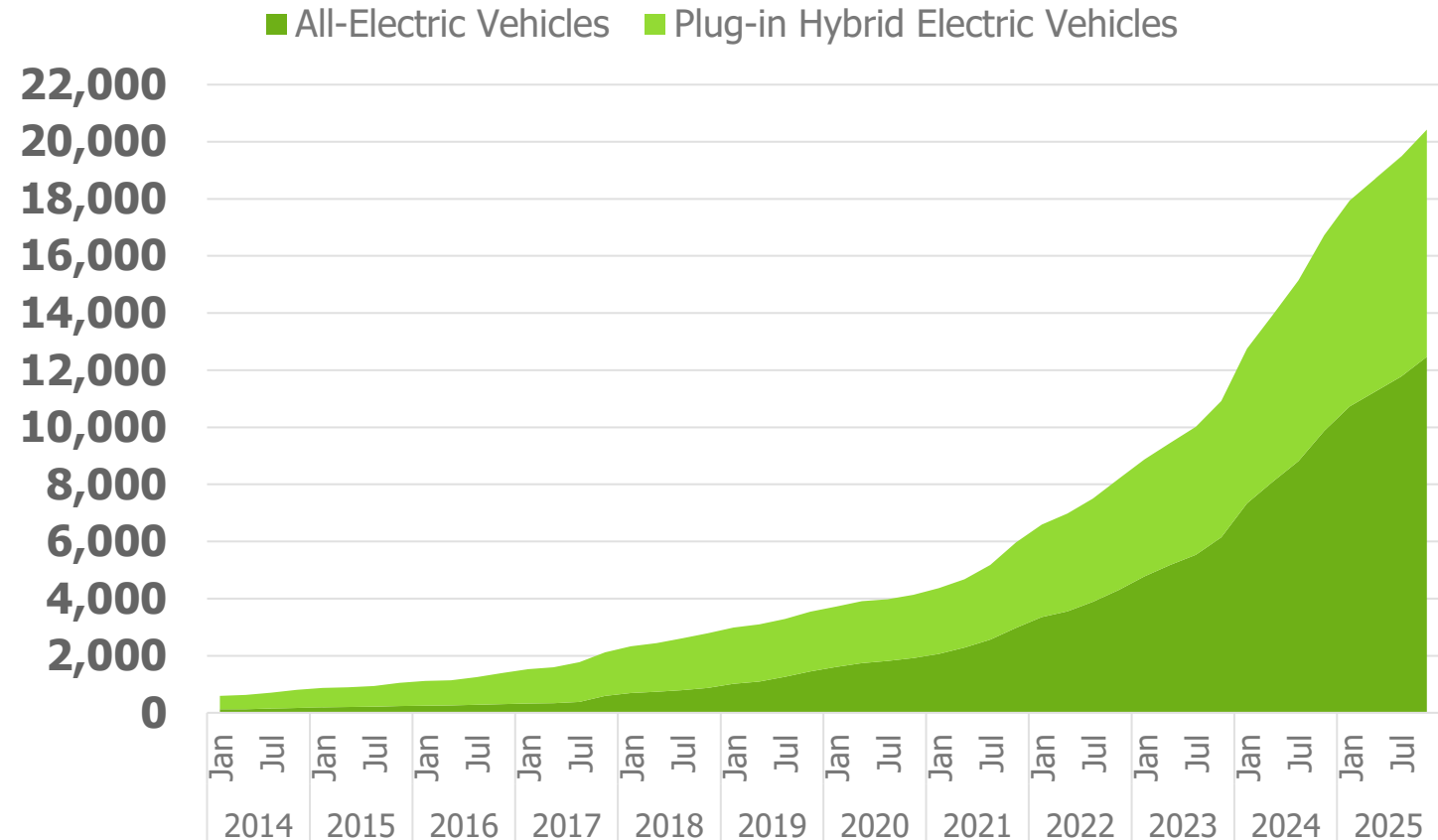
Carbon Reduction Program Funding Priorities for State-Directed Funds

	Project Type	Examples	Allocations to Date
	Bicycle & Pedestrian Projects	Shared-use paths, bike lanes, and sidewalks	\$8.5 million
	Transit & Micromobility	Microtransit, shuttles, carshare	\$9.0 million
	Fleet Conversion	Public transit and fleet electrification	\$4.9 million
	Traffic Efficiency	Park and Rides, signals, roundabouts	\$4.2 million

Electric Vehicle Adoption increased 22% over the prior year

There were 20,424 registered electric vehicles in October 2025, an increase of 22% over the prior year (equal to 3,693 net added EVs). EVs comprise 10% of all new light-duty vehicle sales in Vermont.

61% of registered EVs were all-electric models and 39% were plug-in hybrids. Drive Electric Vermont reported 62 all-electric and 22 plug-in hybrid models available for sale, with 12 models priced at under \$40,000 for a base trim level.



Electric Vehicle Incentives are less than previous years

In 2025, the federal tax credit for new EVs ended for Vermonters after 16 years. Separately, Vermont's Electrify Your Fleet program, which served businesses and municipalities, exhausted its funding. However, most utilities continue to offer Tier III incentives for the purchase of new and used EVs.

Distribution Utility Incentives	Federal Tax Incentives	State of Vermont Incentives	Efficiency Vermont Incentive for Dealers
\$250 - \$3,200 for new and used purchases (varies by vehicle and utility)	The tax credit of up to \$7,500 <u>expired on September 30, 2025</u>	Funding Exhausted The Electrify Your Fleet program of \$500,000 total has <u>exhausted all funding</u>	\$600 split between dealership and sales staff for each EV sold or leased
Five utilities offer additional free charging equipment or rebates up to \$1,000			

Electric Vehicle Rates are implemented or being implemented statewide

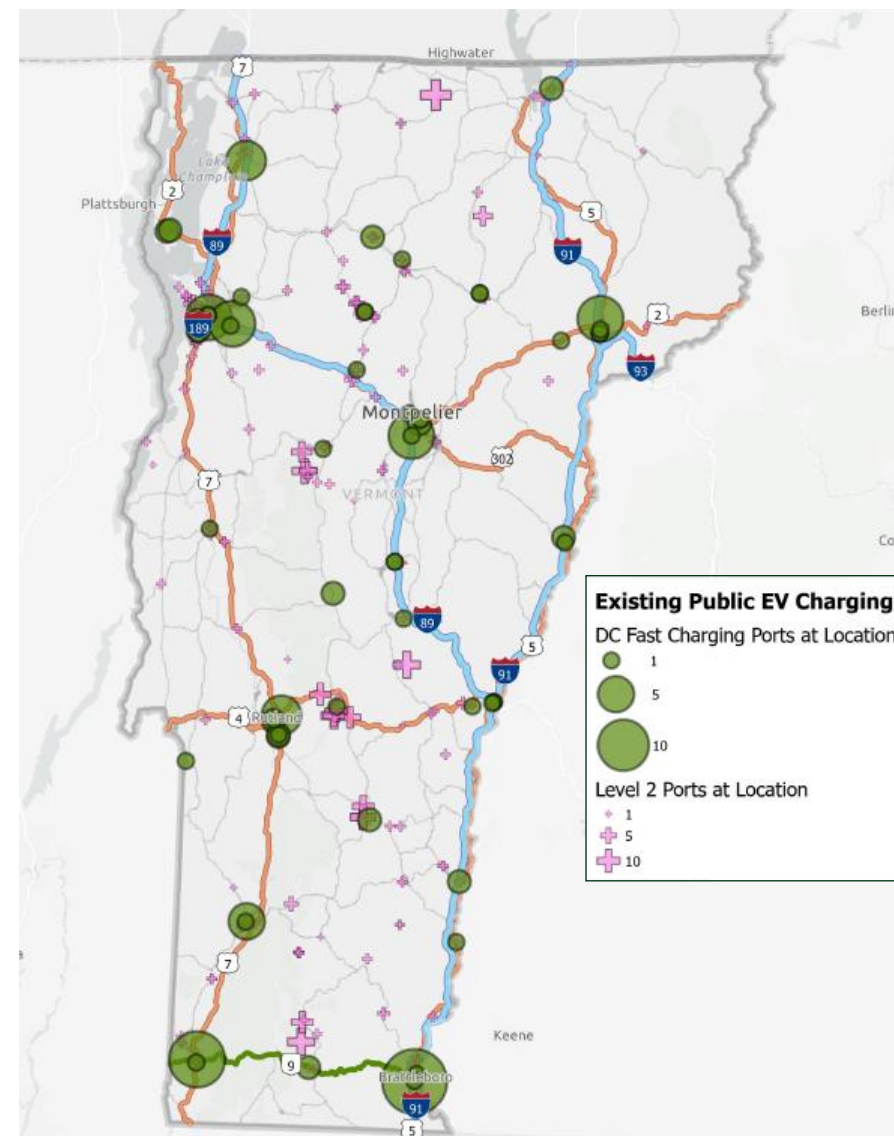
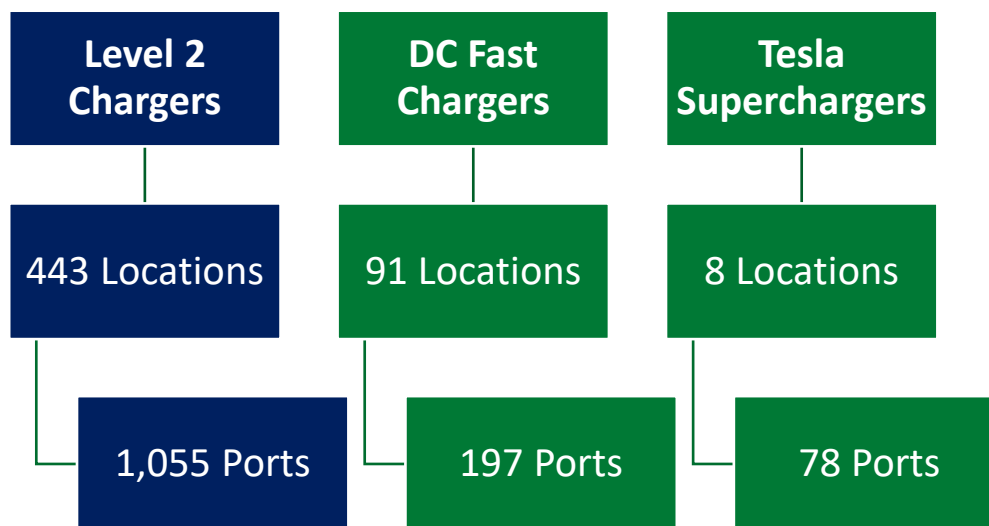
Act 55 of 2021, the Transportation Bill, required each distribution utility to offer electric vehicle rates. The rates must encourage EV adoption without adversely impacting other ratepayers.

To participate in the rate, customers use either web-connected EV chargers or built-in vehicle telematics software to communicate with a utility via a third-party software provider.

Utility	EV Rate Now Available?	Summary
Green Mountain Power	Yes	Offers time-based and peak event-based rates, and a demand charge exemption for high-speed public chargers
Burlington Electric Dept.	Yes	Offers time-based and peak event-based rate options
VPPSA Representing 11 Municipal Utilities	Yes	Offers a pilot program with varying prices based on electricity market conditions
Vermont Electric Coop.	Yes	Offers \$8 bill credit each month that charging occurs entirely outside peak demand events; also offers time-based rates for residential and commercial customers
Stowe Electric Dept.	No	PUC currently reviewing proposed time-of-use rate
Village of Hyde Park	No	PUC granted extension to 2026 for technical reasons
Washington Elec. Coop.	No	PUC granted extension to 2027 pending AMI deployment
GF Power	No	PUC granted general exemption as a non-retail utility

Electric Vehicle Public Charging

Vermont leads all other states in the count of total public charging ports per capita and ranks in the top five for fast chargers per capita. Fast chargers are operated by both private and utility actors. Additional publicly-funded fast chargers are being installed to serve key travel corridors as well as locations more than 10 miles from the nearest fast charger.



Electric Vehicle Charging Incentives

Nearly 80% of EV charging occurs at home. State, federal, and utility incentives have supported past installation of electric vehicle supply equipment (EVSE); federal support will soon end.

Distribution Utility Incentives

Ongoing

\$250-\$2,500 for residential and workplace chargers (varies by utility)

Federal Tax Credit

Ends June 30, 2026

30% tax credit for cost of equipment and installation, for up to \$1,000 for residents and \$30,000 for businesses

National Vehicle Infrastructure Program (NEVI)

Funding Ends After Federal Fiscal Year 2026

\$21.2 million for FFY2022-2026, for highway corridor fast charging

Charge Vermont

Remaining Funds Available in 9 Counties

Multiunit Dwellings
\$500 - \$56,000 per applicant

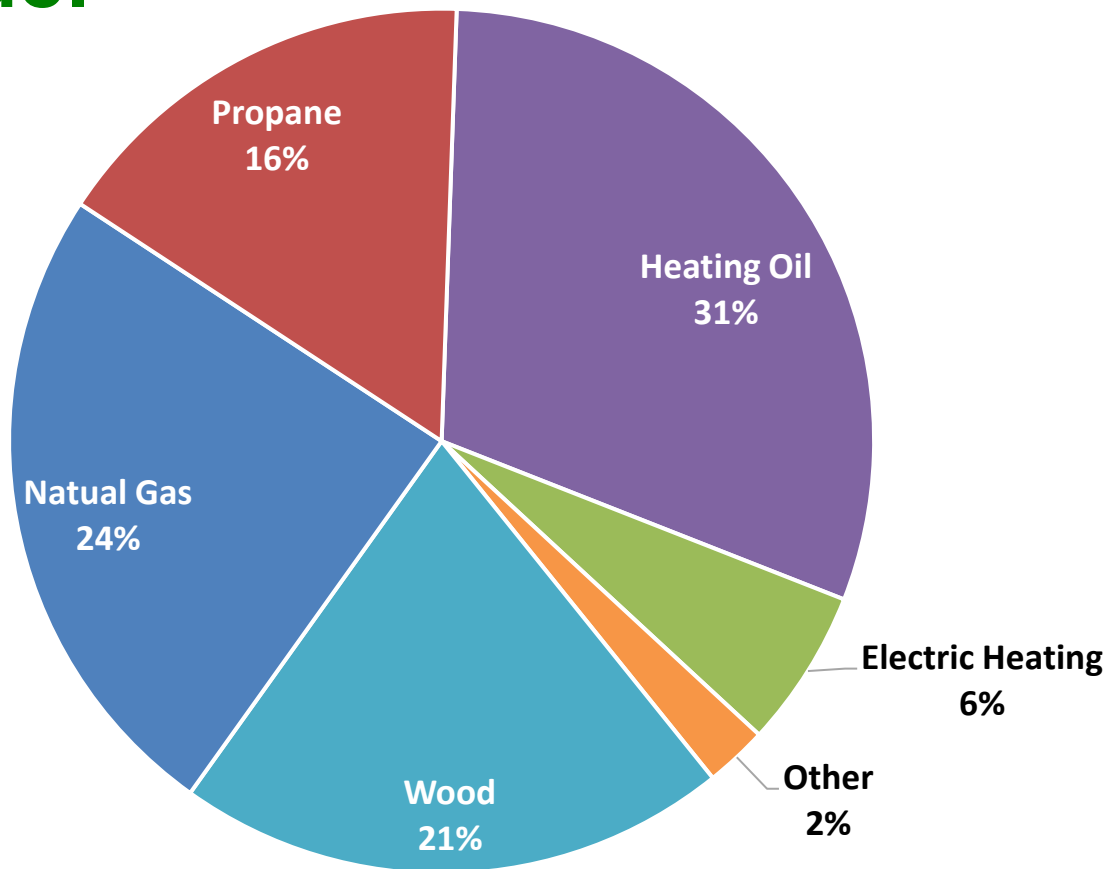
Workplaces
\$500 - \$56,000 per applicant

6. Thermal Sector Data and Trends

Vermont 2023 Thermal Energy Consumption continues to be varied, dominated by fossil fuel

In 2023 Vermont continued to use a variety of fuels to meet heating needs. No one heating fuel dominates in Vermont. Heating oil continues to provide the most energy (BTUs) but continues a multi-year decrease as a percentage of the total BTUs consumed. Fossil fuels together provided over 73% of heating needs. Renewable fuels made up over just under 27% of Vermont's thermal energy consumption from wood, the renewable portion of electric heating, and a small amount of liquid biofuel.

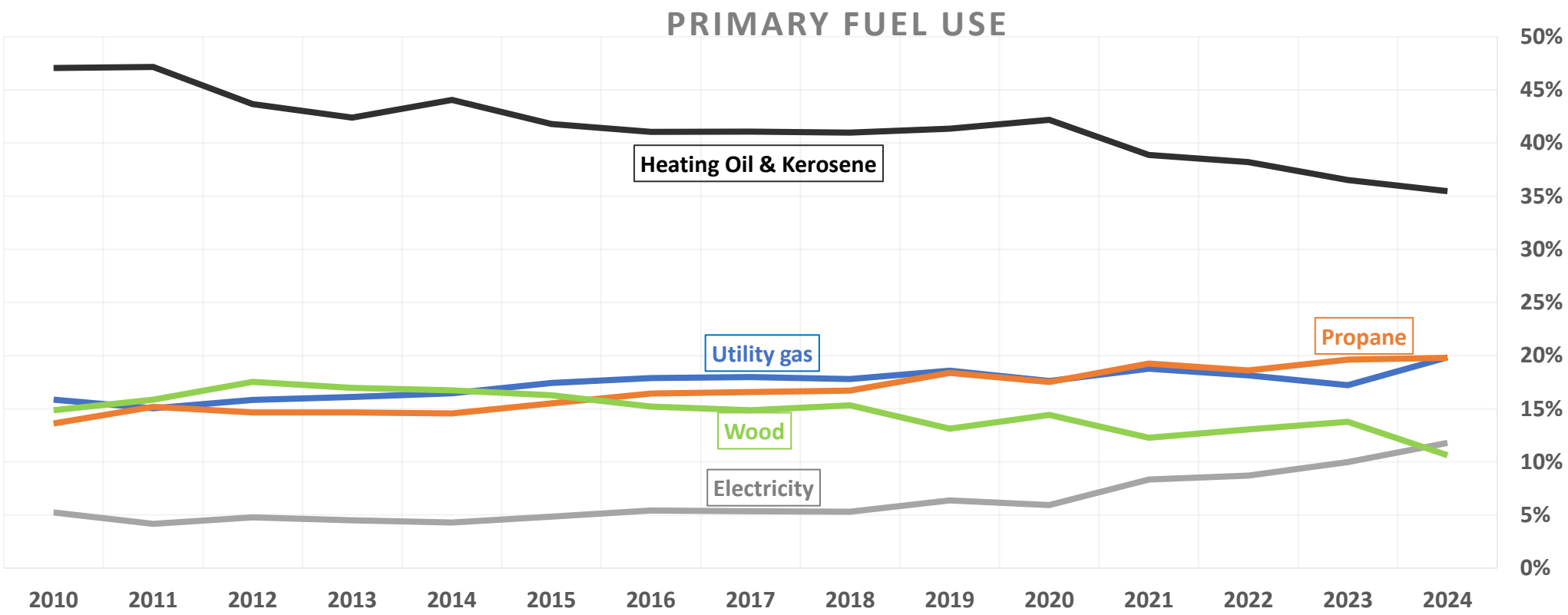
% of Total Thermal Energy Use (BTUs)



Source: 2023 EIA State Energy Data System (SEDS).

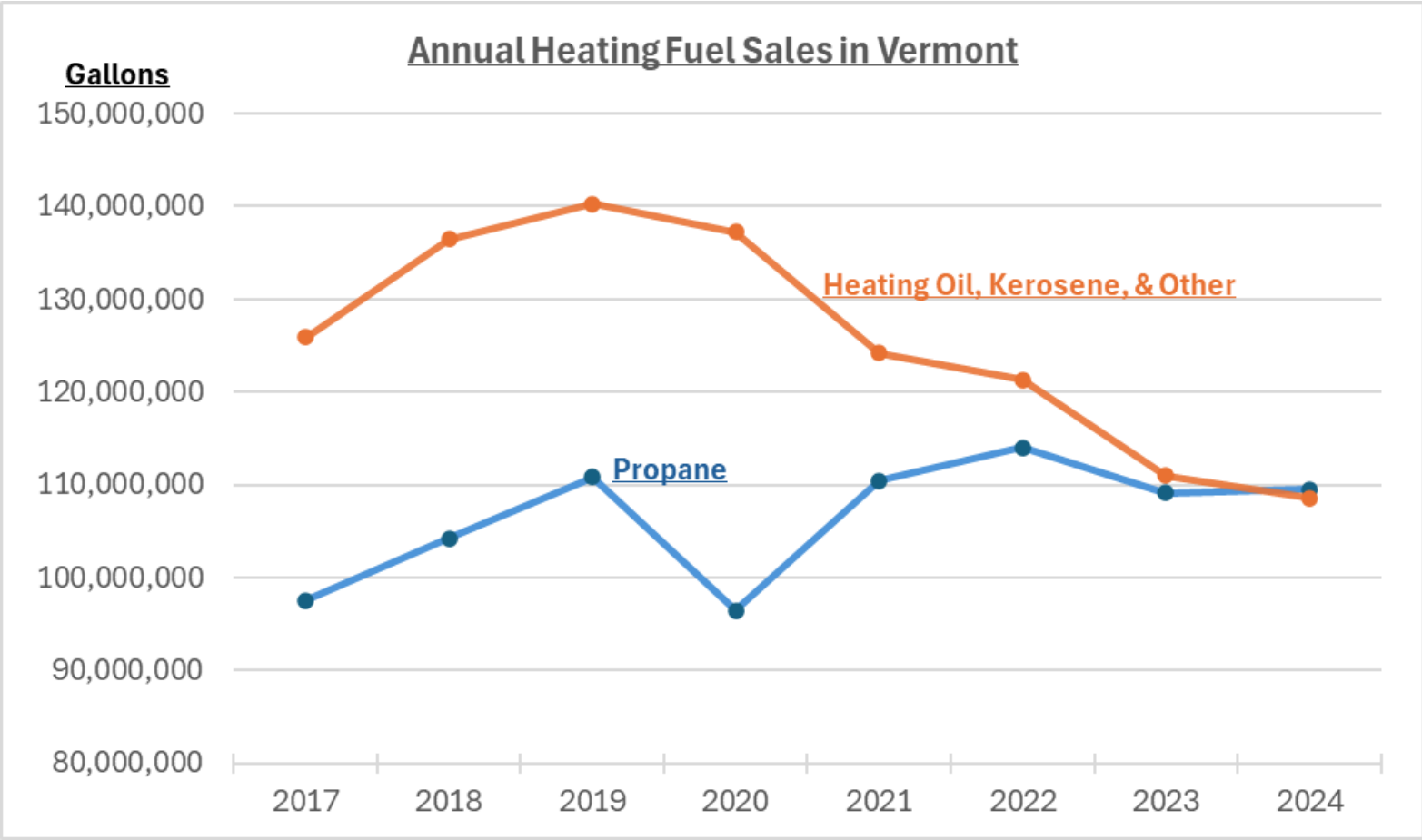
Residential Primary Fuel Use 2010-2024: Electricity use continues to increase

Residential use of heating oil and kerosene continues to drop as Vermonters’ primary heating fuel. Electricity remains on the rise as a primary heating source with increased adoption of heat pumps. Data from the US Census Bureau’s American Communities Survey is compared with Vermont heating oil and propane sales data to confirm accuracy of this data.



Source: 2024 US Census Bureau’s American Community Survey. Totals don’t equal 100% as there are small amounts of other fuels respondents reported as their primary heating fuel (e.g., Coal, Solar, and “other”).

Fossil Heating Fuel Sales have decreased



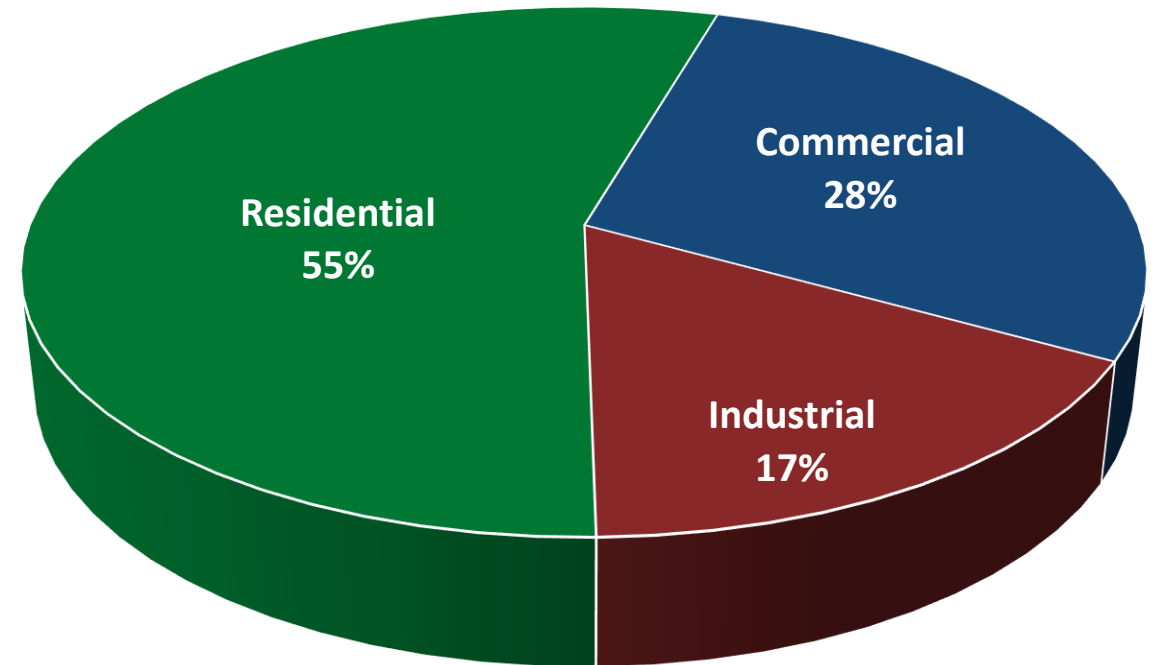
Combined sales of heating oil & kerosene are down 23% and propane sales down 1% over the last five years. 2024 was the first time propane sales (in gallons) surpassed the combined heating oil and kerosene sales - by almost 900,000 gallons.

With a warming climate and more efficient homes decreasing demand there is an increased use of electricity for heating. These factors continue to lower Vermont’s use of heating oil.

Source: Vermont State Tax Department; 2024 sales data

Vermont 2023 Thermal Energy Demand by Sector

Vermont's thermal uses of energy by sector/building type has remained steady based on 2023 data. The residential sector uses the most thermal energy to keep our homes warm. Businesses use about 28% to heat buildings and the industrial sector uses about 17% for space heating and for manufacturing/material processing.

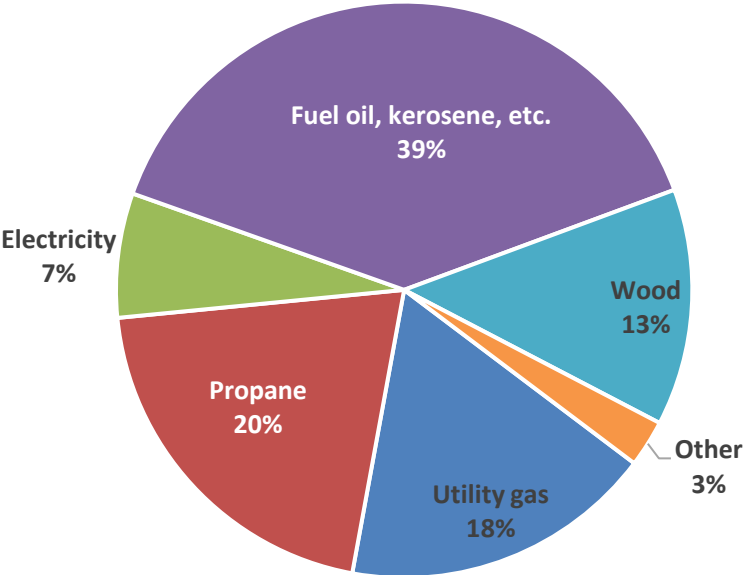


Source: 2023 EIA State Energy Data System (SEDS).

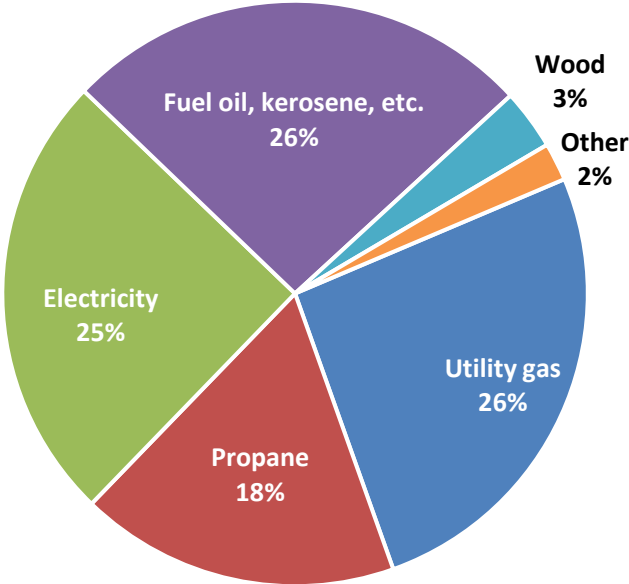
Primary Heating Fuel Source Varies by Housing Type

Vermonters' use of heating fuels varies based on their type of housing. Renters use less wood for their primary heating and more electricity for heating than homeowners. In parts of the state where utility gas is available it is an increasing primary fuel for both renters and homeowners compared to prior years.

2024 Primary Heating Source by Owner Occupied Homes

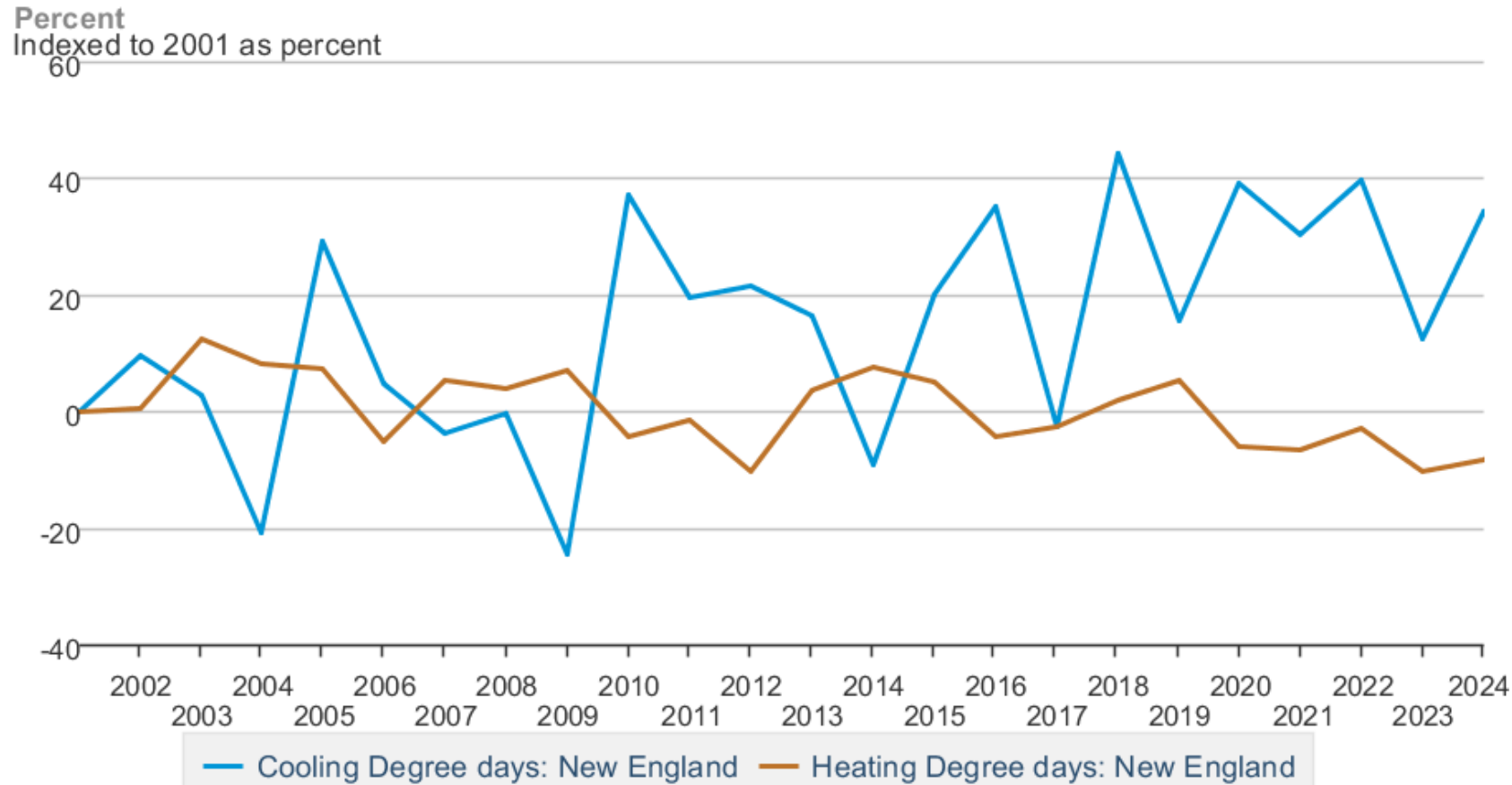


2024 Primary Heating Sources by Renter Occupied Homes



Source: US Census – American Community Survey Data, 2023 & 2024.

Thermal Demand Impacted by Weather, heating needs have decreased since 2001



Vermont's thermal energy needs depend on the weather. Over the last twenty-three years, the amount of Cooling Degree Days in New England increased by 34.2% while the amount of Heating Degree Days has decreased by 8.4%. Historically, demand for heating fuel has moved in line with heating degree days. The warming climate is decreasing the demand for heating fuels in the winter.

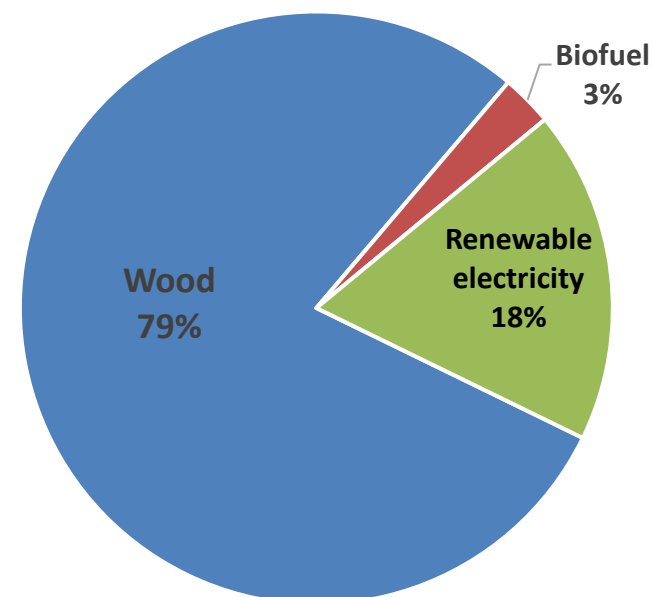
Source: U.S. Energy Information Administration (Dec 2025)

Vermont 2023 Renewable Thermal Energy Supply is Mostly from Wood

Of the twenty-six percent of total thermal energy usage in Vermont that was renewable, the vast majority of that is wood fuel of various types (cord wood, wood chips, and wood pellets).

As electricity use for heating increases with more efficient cold-climate heat pumps being installed and the amount of electricity generated from renewable sources grows the PSD expects the percentage from renewable electricity to increase.

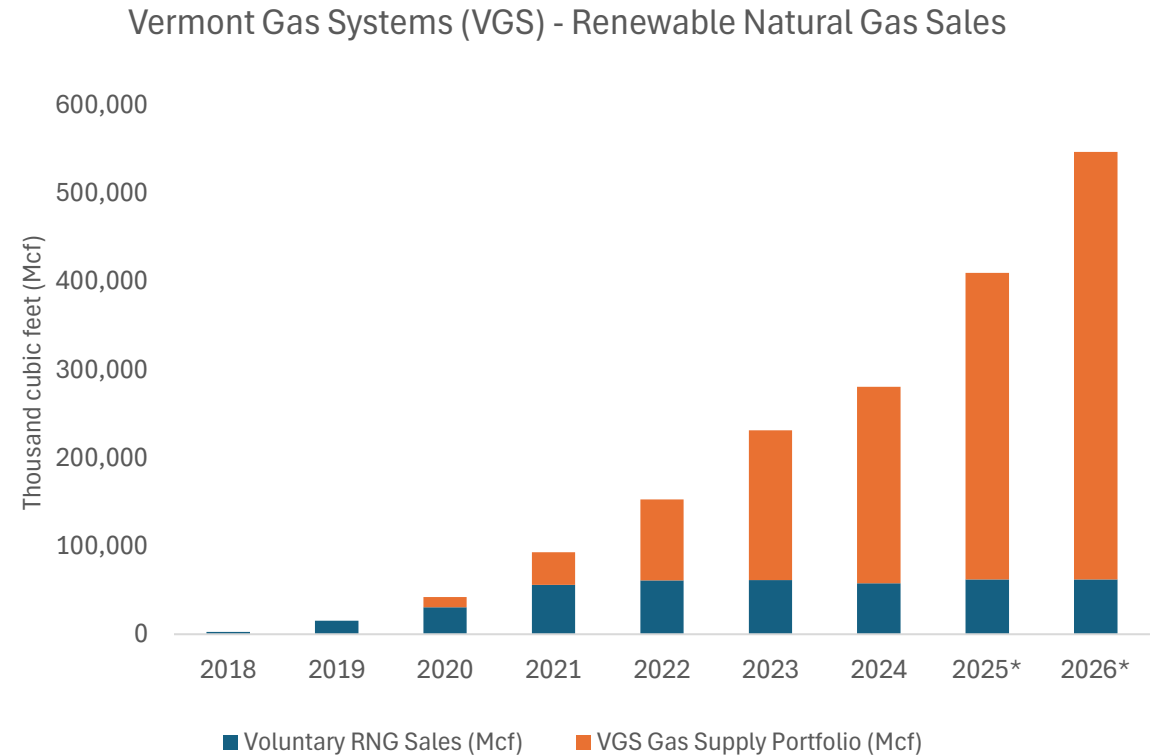
Renewable Energy for Heating 2023



Source: 2023 EIA State Energy Data System (SEDS) and PSD data

Vermont Gas Alternative Supplies

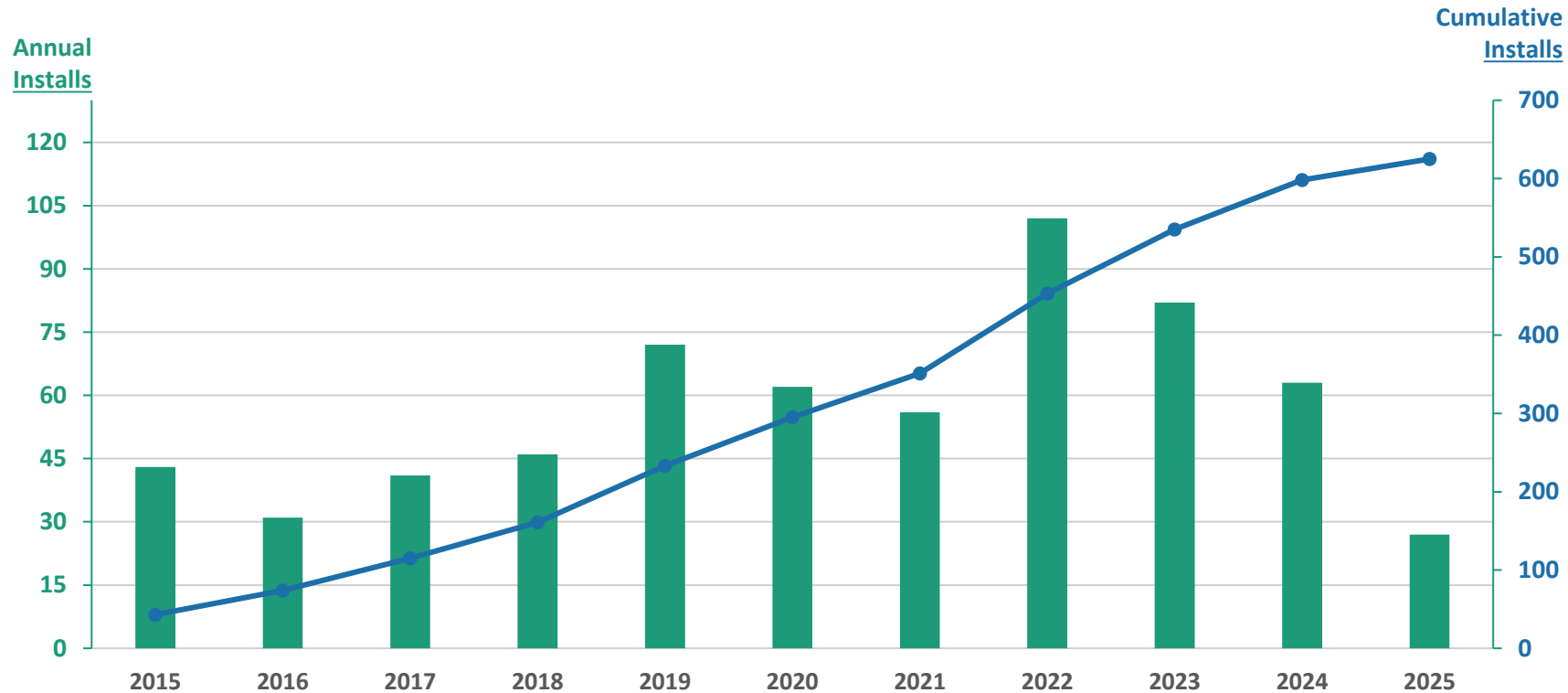
Vermont Gas Systems (VGS) continues to invest in alternative supplies such as renewable natural gas (RNG) and pilots for emerging technologies such as green hydrogen. These resources have varying emissions intensities based on the method of production and use-case. VGS has seen increasing sales under their voluntary RNG tariff since it's inception in 2018. Under their current Alternative Regulation Plan – VGS may also invest in alternative supplies up to 6% of total gas sales passed through VGS' supply portfolio to all customers. These supplies must be cost-effective relative to the societal cost of carbon established by the VT Climate Council, and with due regard to the overall rate impact on VGS customers.



(*) 2025/2026 projected

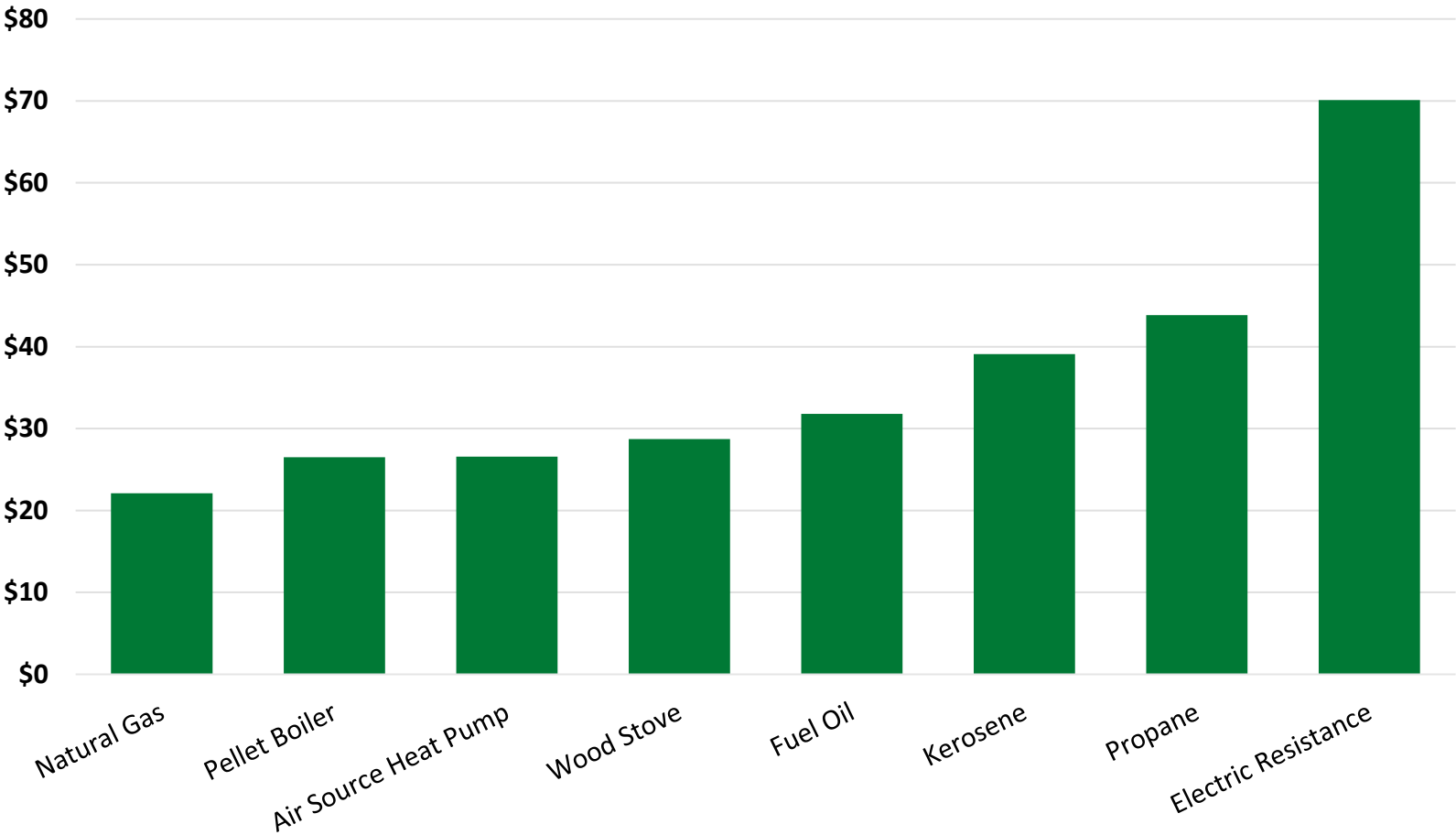
Central Pellet System Installations 2015 – 2025

have declined in recent years



Pellet boiler/furnace installations hit a high in the summer of 2022 but have declined since. State incentives ended in 2024, but Efficiency Vermont continues to have an incentive for pellet boilers. This data is only for central/full house pellet heating systems and doesn't include pellet stoves. The higher numbers in 2022 and 2023 was driven by COVID recovery funds that increased incentives for low-income residential installations. Of the 625 known installations (that received a state or EVT incentive) 553 have been residential.

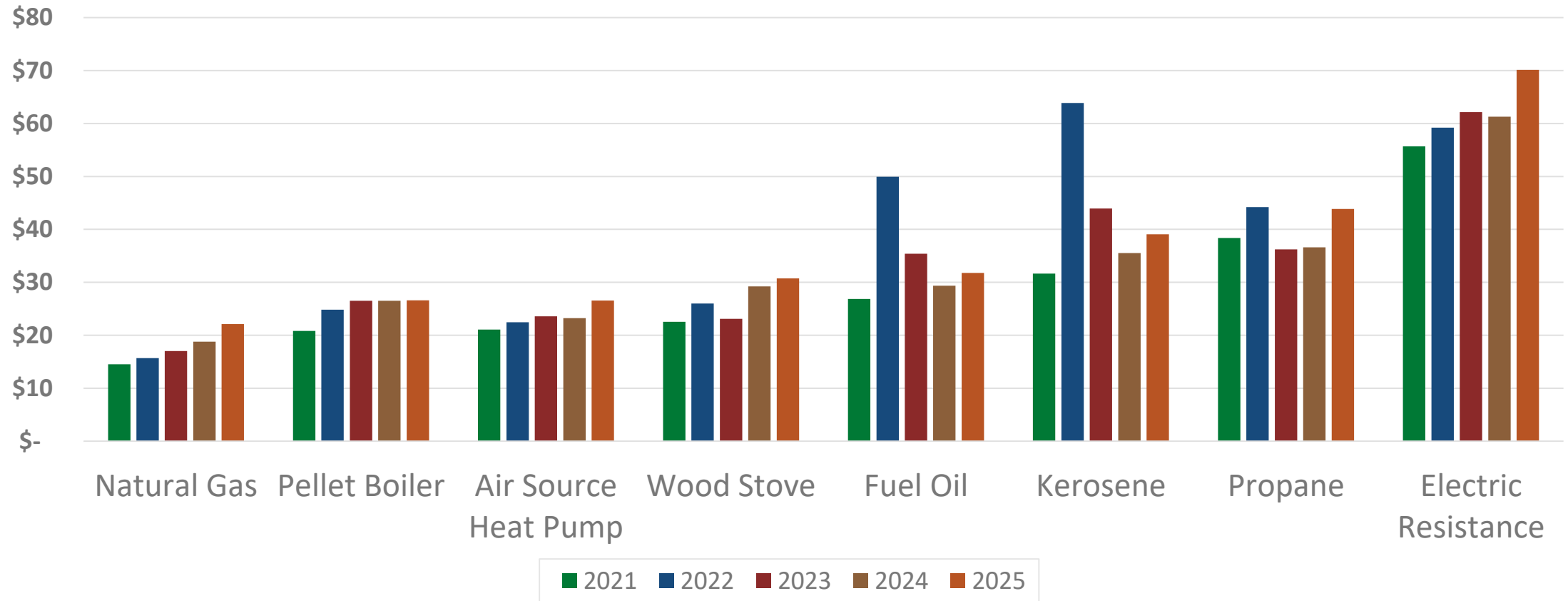
Residential Effective Cost per MMBTU of Heating Fuels: On a \$/MMBtu delivered basis, natural gas remains the most affordable



Delivered fuel prices increased 10-20% during 2025 relative to 2024. Natural gas remains the cheapest option to meet heating needs on a \$/MMBTU basis.

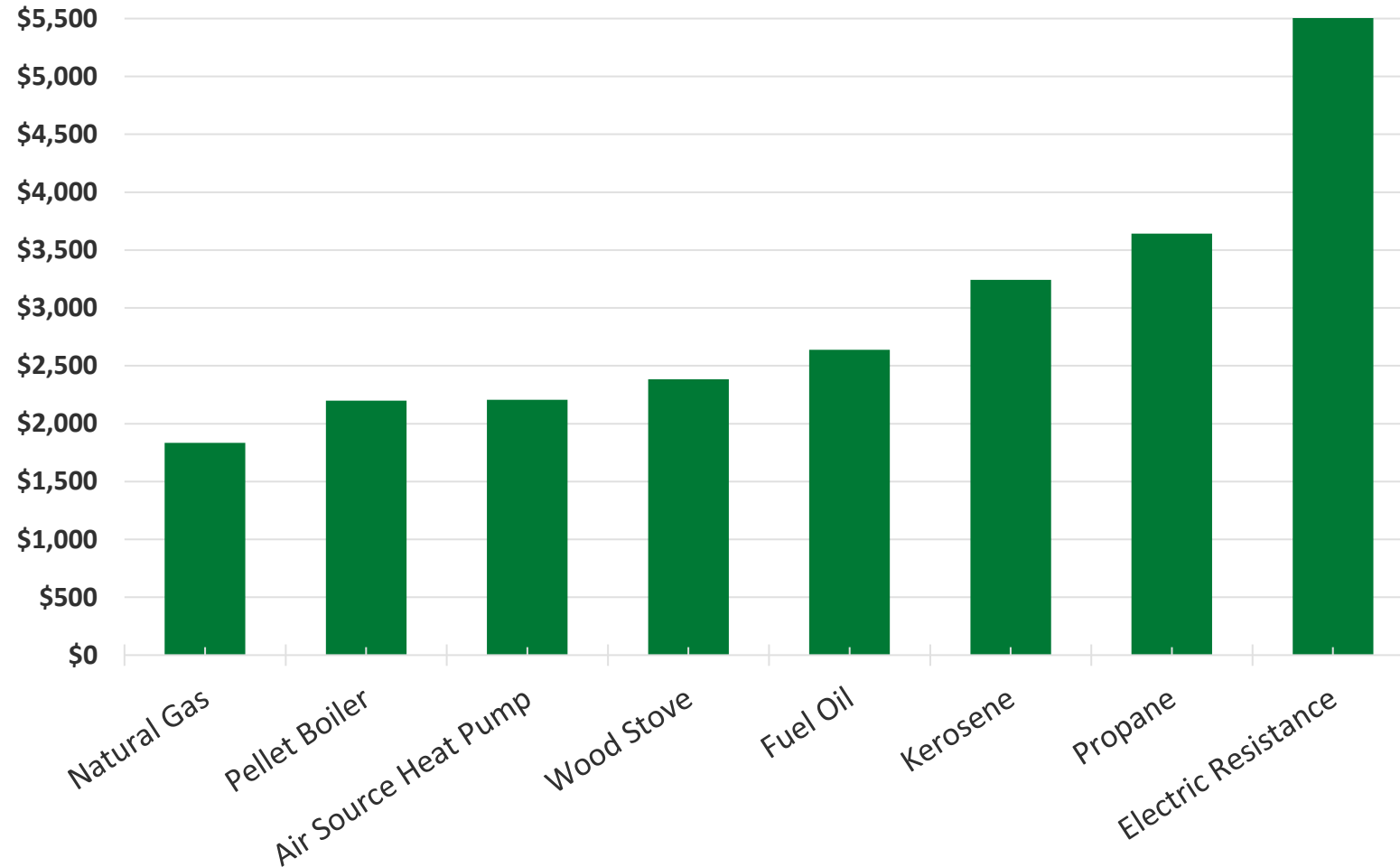
Costs reflect retail prices between September and November 2025.

Vermont Heating Fuel Price Trends (\$/MMBTU) 2021-25



Fossil heating fuel prices are more volatile than electricity and wood fuels. Utility gas prices are regulated in Vermont helping to smooth out the gas commodity market price. The above graph shows annual spot prices from 2021 through 2025 collected in November or December of each year.

Annual Average Household Heating Costs



Costs reflect retail prices between September and November 2025.

There is a wide range of potential annual heating costs that an average Vermonter might pay if using a singular fuel to meet 100% of thermal demand (assumed to be 83 MMBTU/year).

Building Energy Code Working Group (BECWG)

Act 151 of 2024 reconstituted the BECWG to recommend strategies for increasing compliance with the Residential Building Energy Standards (RBES) and Commercial Building Energy Standards (CBES). The Public Service Department facilitated development of the report, but the recommendations – some of which were not supported by the Department – are those of the BECWG.

The BECWG made the following recommendations in 2025. Dissenting opinions are included in the final report.

- The Authority Having Jurisdiction (AHJ) for energy codes should be the Division of Fire Safety (DFS), starting with public buildings and extending to single-family homes upon adequate funding and resources and a phased timeline by 2030.
- DFS should become the single repository of RBES and CBES compliance certificates by 7/1/27, including for single-family.
- A portion (~\$400k) of accumulated RGGI funds should be used to support energy code compliance (e.g., staff & tech consult, Contractor registry website, marketing).
- A Task Force of stakeholders, educators, and state officials should be set up to support OPR's Residential Contractor registry, e.g., list of trade services, voluntary certifications, credentialing entities.
- The "Energy Module" currently required for certain DFS trades and OPR professions should be updated to focus on energy code requirements relevant to those trades/professions.
- Future energy codes should be the International Energy Conservation Code (IECC) with few or no changes. Effectively this may mean no longer accounting for VT energy goals.
- Future code update should consider requiring ventilation system testing/balancing/commissioning and whether to add third-party attestation to RBES/CBES certificates

Additional information, including the groups reports, is available at: <https://publicservice.vermont.gov/efficiency/building-energy-standards/building-energy-code-working-group>

VT Energy Workforce Development Funding and Initiatives

VIEW Training Center

Funding: \$1.7M from U.S. Department of Energy (DOE)

Purpose: To support weatherization and other construction trades in recruiting, training, and placing workers in careers. VIEW will serve as a hub to coordinate existing training programs and develop new training programs for Vermont. A specific goal of the Training Center is to diversify the workforce and bring underrepresented individuals into the weatherization field.

State Energy Program (SEP) Bipartisan Infrastructure Law (BIL) - Workforce Development Training

Funding: \$875,000 from U.S. DOE, BIL

Purpose: The PSD has budgeted a portion of the SEP BIL award to provide weatherization workforce development.

Efficiency Vermont ongoing Building Energy Code Support

Funding: \$105,500 for 2024-2026 DRP – DSS budget

Purpose: This funding is to provide technical support and training regarding the development and implementation of state energy codes and includes, but is not limited to:

- Direct technical assistance, including a telephone assistance hotline;
- Development, production, and delivery of educational materials;
- Development and delivery of workshops and professional training; and
- Technical support for the development or amendments of energy codes and standards.

Efficiency Vermont - Workforce Development FTE position

A full-time position was filled in 2024 to assist with Talent Pipeline Management in the energy efficiency trade workforce. This position will work collaboratively with Vermont partner organizations on helping to build and implement long term strategies to recruit and retain more skilled workers in the weatherization and heating electrification fields.

EAN Climate Workforce Coalition

Purpose: Create and implement a plan to reduce the gaps in the climate workforce to support implementation of the Climate Action Plan. The Climate Workforce Coalition is planning a Climate Jobs Campaign for 2025.

School Heating Assistance with Renewables and Efficiency (SHARE)



- Clean Energy Development Fund (CEDF) Board allocated ARPA Funding - \$3.75 Million – Rounds 1&2
- Eligible Measures: Advanced Wood Heat (AWH), Heat Pumps (HPs), Controls and Efficiency Projects
- Round 3 - \$2 Million funding for FY24 of General Fund \$\$ - **AWH associated projects only**
- Title I Schools Eligible for grants \$25K-250K
- 95 initial applications seeking \$15.25 million in funding requests for projects totaling \$52 million
- 20 ARPA-funded projects
- 9 projects awarded in round 3 for ~\$1.3 Million
- Annual expected savings per school - ~\$23K; 8,600 gallons of oil
- Warmer, more comfortable learning and working environments

Weatherization Repayment Assistance Program (WRAP)

The *Weatherization Repayment Assistance Program* is an innovative program run by Vermont Housing Finance Agency to help Vermonters participate in comprehensive home efficiency projects. The WRAP pilot on-bill program was initially proposed by Governor Scott in 2021 and funded with \$9 million in State appropriations in that year. [WRAP](#) allows Vermont households to pay for qualifying weatherization projects as well as heat pumps, advanced wood heating systems, and health and safety measures through a monthly charge on their electric or gas bill. The charge is tied to the *meter* rather than to the individual customer – overcoming the barriers of access to credit, high upfront costs, and long payback periods. Homeowners and renters can participate in the program. The program is open to Vermonters of all incomes with most of the funding targeted to households earning 80% to 120% of the area median income.

Green Mountain Power, Vermont Electric Cooperative, Vermont Gas Systems, and Burlington Electric Department currently offer the program to their customers. WRAP has seen slower than expected uptake. The program is currently operating at a reduced budget of \$2 million through June 2027. VHFA is actively coordinating with the program administrators, Efficiency Vermont, Vermont Gas Systems, and Burlington Electric Department to improve the customer experience and expand participation opportunities.

Weatherization Within Reach

- ✓ Low monthly payments added to your utility bill
- ✓ No credit check required
- ✓ Up to 75% off project costs



Report End