THANK YOU REV2026 SPONSORS















































High-level summary of primary drivers of state-level price changes from 2019-2024

Key take away: Many states did not experience outsized price changes in real dollar terms. For those states that did experience such price changes, the drivers were varied and diverse. Based on our analysis and available literature, the largest drivers, at least for subsets of states, are summarized to the right.

Important note: *Though many of the past drivers may have similar effects in the future, that need not be true in all cases. National load growth was modest over the time-period of focus for this slide deck but is now accelerating, which may change future price drivers. Tax credits for wind and solar were also available, which have been altered via legislation.*

This analysis does not seek to predict future retail electricity prices and related drivers, and nor does it prognosticate on approaches to reduce retail electricity prices.

Key Drivers of State-Level Retail Electricity Price Changes from 2019 to 2024

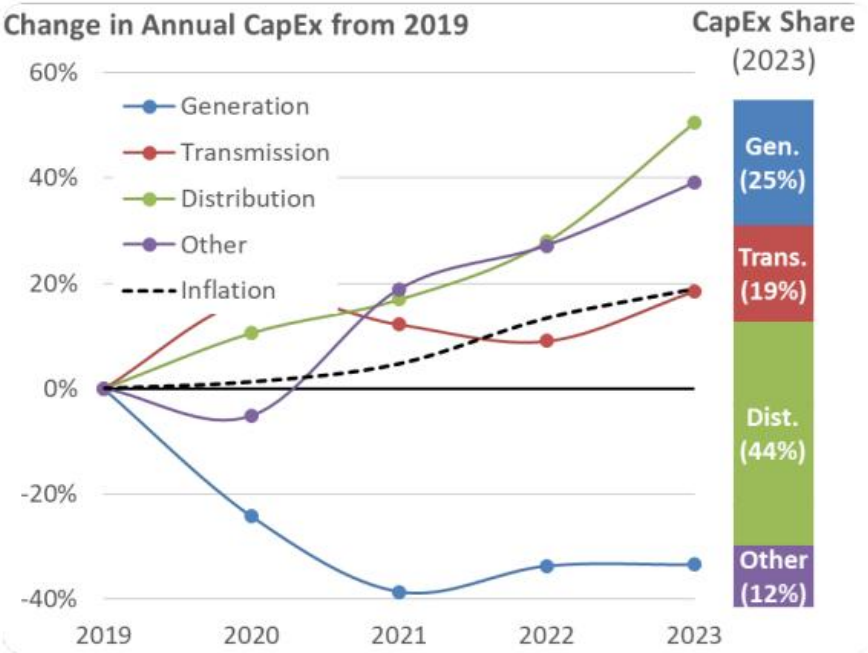
(beyond economy-wide inflation)

Price Driver	Maximum Size	Geographic Breadth	Discussion
Replacement & hardening of aging distribution (and transmission)	^ medium	Large	Likely under 0.5 ¢/kWh in majority of states, but reasonably widespread impact given scale of distribution investments and supply-chain constraints.
Extreme weather & wildfires: recovery and mitigation	^ larger	Medium	As much as 4 ¢/kWh in California, but impacts of 0.5-1.5 ¢/kWh in a number of states in the West, and on the East and Gulf coasts.
Natural gas price variability	^ v larger	Large	As much as over 2 ¢/kWh increase through 2022-2023, with subsequent decrease; most acute impacts in Northeast, NV, FL, PA, etc.
Customer load growth	v medium	Medium	Over 1 ¢/kWh in only a couple especially high-growth states, with a handful of others over 0.5 ¢/kWh; relationship may change in future.
Utility-scale wind & solar (market-based)	v medium	Medium	75% of wind and solar growth occurred outside RPS; may have reduced retail prices by over 0.5 ¢/kWh in a couple states, under 0.5 ¢/kWh in many others.
State Renewables Portfolio Standard policies	^ medium	Medium	As much as ~1 ¢/kWh in a few Mid-Atlantic and New England states; lower and varied impacts in many other states with RPS programs.
Net energy metered solar	^ larger	Small	As much as ~2 ¢/kWh in California and over 1 ¢/kWh in small number of other high-growth states especially in the Northeast; low impacts in most states.

Notes: Illustration seeks to show general tendencies. A 'larger' maximum size is defined as an impact of 2 ¢/kWh or more in at least one state; a "medium" maximum size is defined as a meaningful but smaller impact of under 2 ¢/kWh--see the notes column for additional details. A 'large' geographic breadth implies that the price impact may be meaningful among roughly one-third or more of U.S. states, whereas 'small' signifies meaningful impacts in perhaps a handful or fewer states--again, see the notes column for additional details.

Source: LBNL, Factors Influencing Recent Trends in Retail Elect. Prices,, at 6 (Oct. 2025)

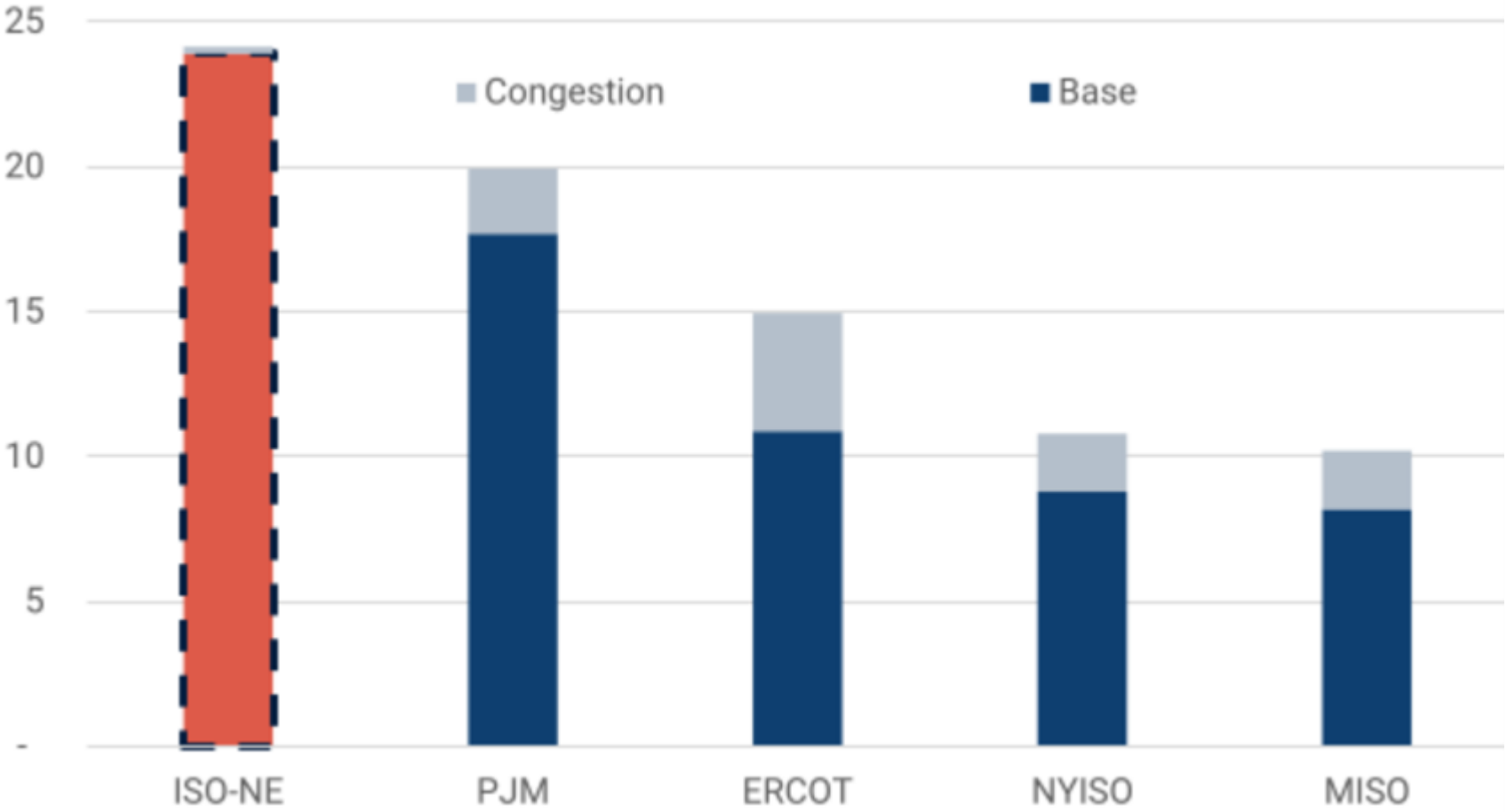
Growth in Utility Capital Expenditures



Notes: In the left-hand figure, each line is based on those utilities with data across all years for a given CapEx category. The stacked bar chart on the right is based on the subset of utilities with data reported for all CapEx categories. Values represent additions. See page 43 for breakdown of "other" and page 44 for absolute values across all categories. Source: FERC Form 1

- Capital expenditures (CapEx) are recovered through retail electricity prices gradually over time (e.g., through depreciation)
- Distribution is currently the largest source of CapEx (44% of the total in 2023; see page 45 for breakdown by functional category)
- Distribution CapEx has grown steadily and at a rapid clip—growing by 50% over 2019-2023
- Transmission CapEx fluctuated from year to year, with 2023 levels up 20% from 2019
- In contrast, generation CapEx declined by 40% from 2019-2021, then remained flat
- Trends are generally consistent across regions (see page 47)

Source: LBNL Retail Electricity Price & Cost Trends, at 21 (Dec. 2024)



Source: April 2026 Jefferies Email

A Solution: Improve Grid Utilization

Transitioning energy systems to optimize existing capacity

TRADITIONAL APPROACH

Building to Peak

Focuses infrastructure investment primarily on meeting maximum potential demand levels.



FUTURE PARADIGM

Managing for Utilization

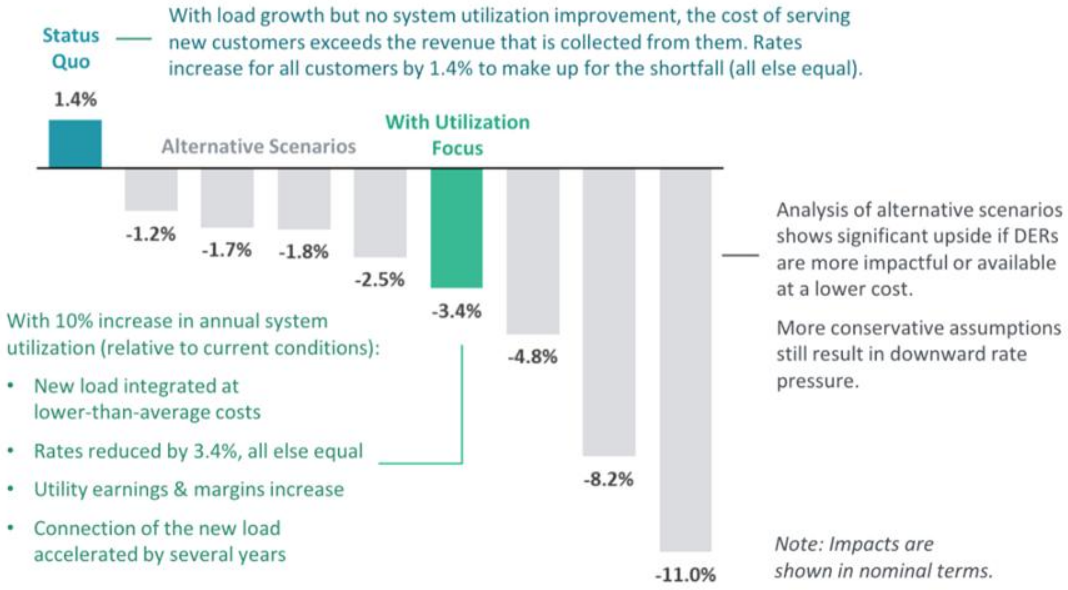
Maximizes system efficiency, optimizes existing assets, and accommodates new loads cleanly.

Strategic Mandate: Transition from Building to Peak to Managing for Utilization

The Impacts of Improved System Utilization: An Illustrative Example

In this illustrative analysis, improving system utilization can reduce customer bills and accelerate the connection of new load while still allowing utility earnings to grow relative to current levels, all else equal.

All-in Average Rate Impact Due to Load Growth
For various characterizations of the power system



INTERPRETING THE RESULTS

Proof-of-concept. Tailored, jurisdiction-specific analysis is needed to understand the opportunities for any given system.

Other rate impacts. This study does not analyze other factors that could independently drive rate changes, such as the replacement of aging transmission and distribution (T&D) infrastructure or fluctuations in natural gas prices.

Rate design. In practice, rate design can also be an effective tool for mitigating cost shifts from new loads to existing customers.

Policy implications. This paper quantifies the impact of increased system utilization but does not propose specific policies or programs in this area.

National Implications

At a national scale, improving system utilization can be a win for consumers, utilities, and new loads.

Benefits to Consumers

- Scaling the utility-level findings to national load growth: **US consumers could save $110 to $170 billion over 10 years** on their electricity bills due to system utilization improvements.
- Participants in programs or rates earn **additional savings through enrollment incentives**.

Benefits to Utilities

- Improving system utilization lessens but **does not eliminate the need to invest in new infrastructure**.
- **Utility earnings grow relative to current levels**, and margins could increase with the introduction of new regulatory incentives.
- Utilities can focus capital deployment on the most critical infrastructure projects while also **enabling economic development**.

Benefits to New Loads

- New customers to connect to the grid **without shifting costs to other consumers**, addressing an escalating policy concern.
- DERs **mitigate the stranded asset risk of overbuilding the power system** if new load does not materialize as forecasted.
- DERs can be brought online more quickly than other options, **accelerating speed-to-market.**

$$\text{Grid Utilization (\%)} = \frac{\textit{Total Energy Delivered (MWh)}}{\textit{Total Energy Deliverable (MWh)}} \times 100$$

Energy delivered: The numerator captures the total energy, measured in MWh, delivered through the relevant asset or system during the measurement period. As the grid becomes more dynamic, conventional one-way measurements may provide an incomplete picture. Reverse power flows, distributed generation, storage, and other resources can affect how the grid is used without appearing as conventional net load at a single measurement point. Implementation should consider how these flows are represented.

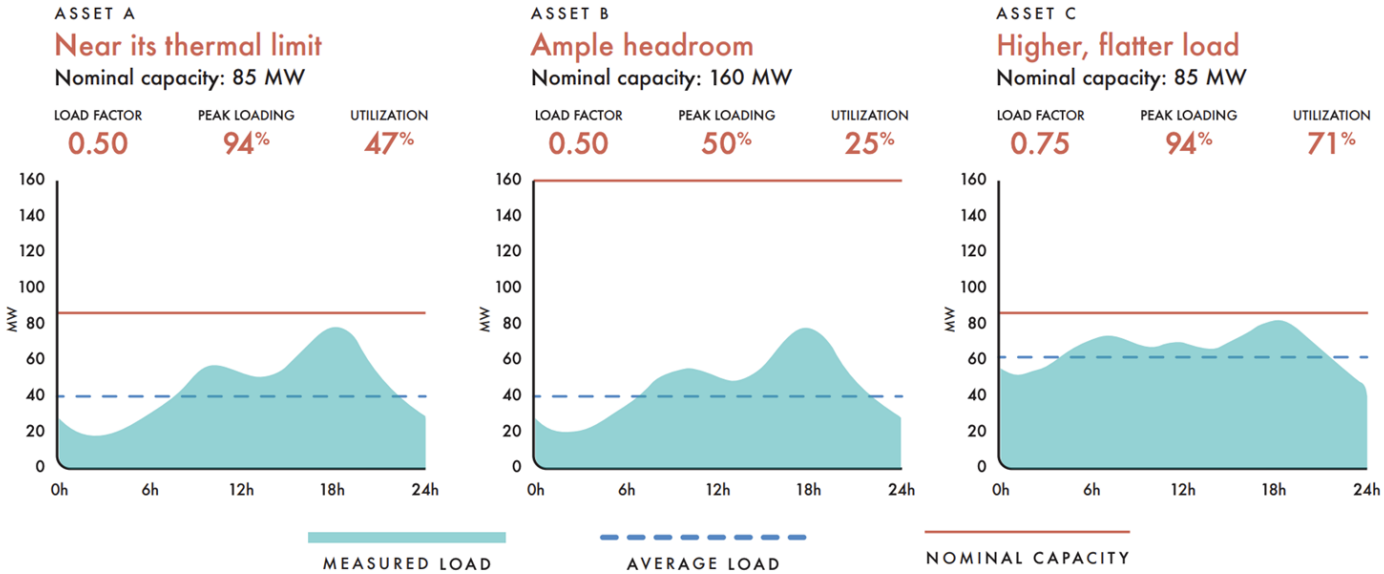
Energy deliverable: The denominator captures the total energy, measured in MWh, that the relevant infrastructure could deliver over the same period. There are multiple ways to define the underlying capacity used to calculate the energy deliverable:

A **nominal calculation** uses a fixed reference rating for the relevant infrastructure, such as a nameplate or designated static rating.

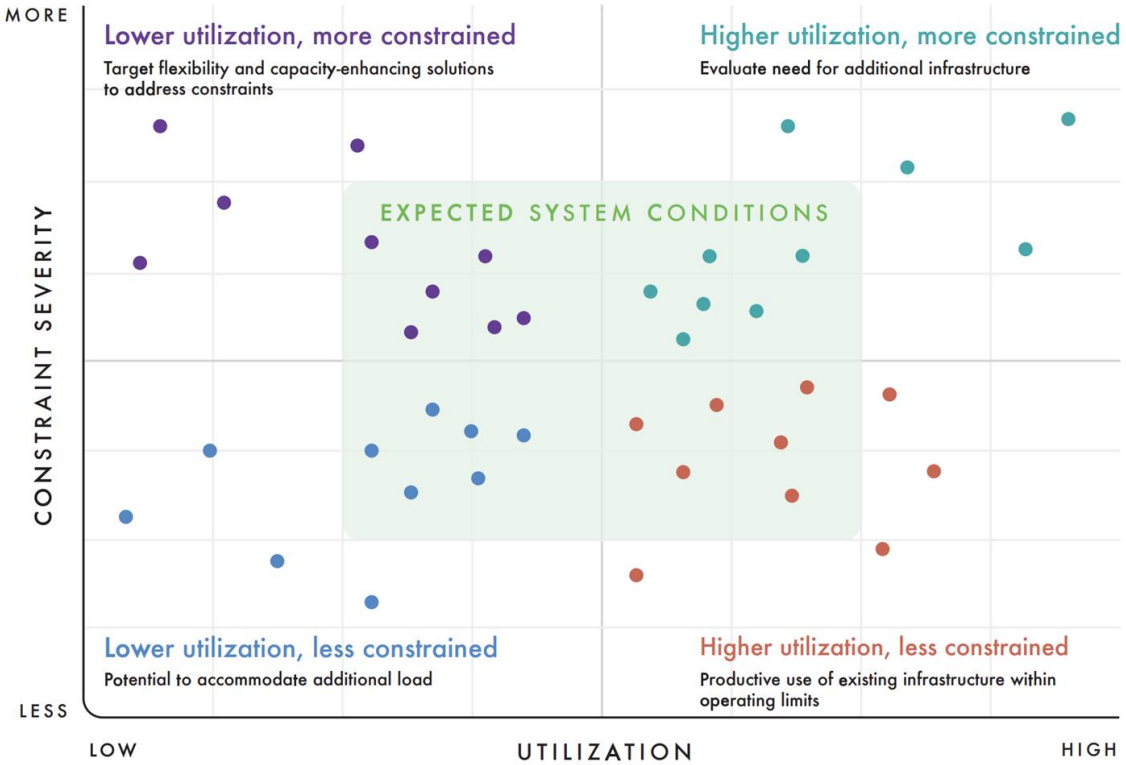
An **operational calculation** is based on usable capacity under defined operating and reliability conditions. Depending on the application, usable capacity may reflect normal, seasonal, emergency, or dynamic ratings, as well as applicable planning or operating limits. Those limits may vary under different contingency conditions (e.g., N-0 or N-1) and account for power quality, local system conditions, and other constraints.

Different metrics reveal different grid conditions

Assets A and B have the same load factor but different peak loading and utilization. Assets A and C have the same peak loading but different load factors and utilization.



Grid utilization as a diagnostic tool



Utilization in a Broader Reporting Framework

This paper proposes a common metric for grid utilization, not a standalone measure of grid performance. A well-rounded reporting framework should pair utilization with complementary metrics and system information that help explain what a utilization result means. Relevant information can include:

- **Reliability and system conditions:** reliability requirements and performance, operating margins, and contingencies.
- **Peak performance and available capacity:** peak demand, operating limits, headroom, load factor and load shape, the frequency and duration of constraints, and changes in electrical losses as system loading increases.
- **Asset health:** equipment condition and expected life, stress or degradation, and relevant operating conditions such as power quality.
- **Expected growth and system needs:** load forecasts, anticipated interconnections, and capacity planned for future demand.
- **Flexible resources:** available demand flexibility, storage, distributed resources, and flexible interconnection.
- **Cost and customer value:** cost per unit of usable capacity unlocked, avoided infrastructure costs, changes in system costs relative to delivered energy, rate and bill impacts, and other affordability measures.

October 14, 2026/Renewable Energy Vermont Panel

How Does Vermont Rate on Energy Affordability?

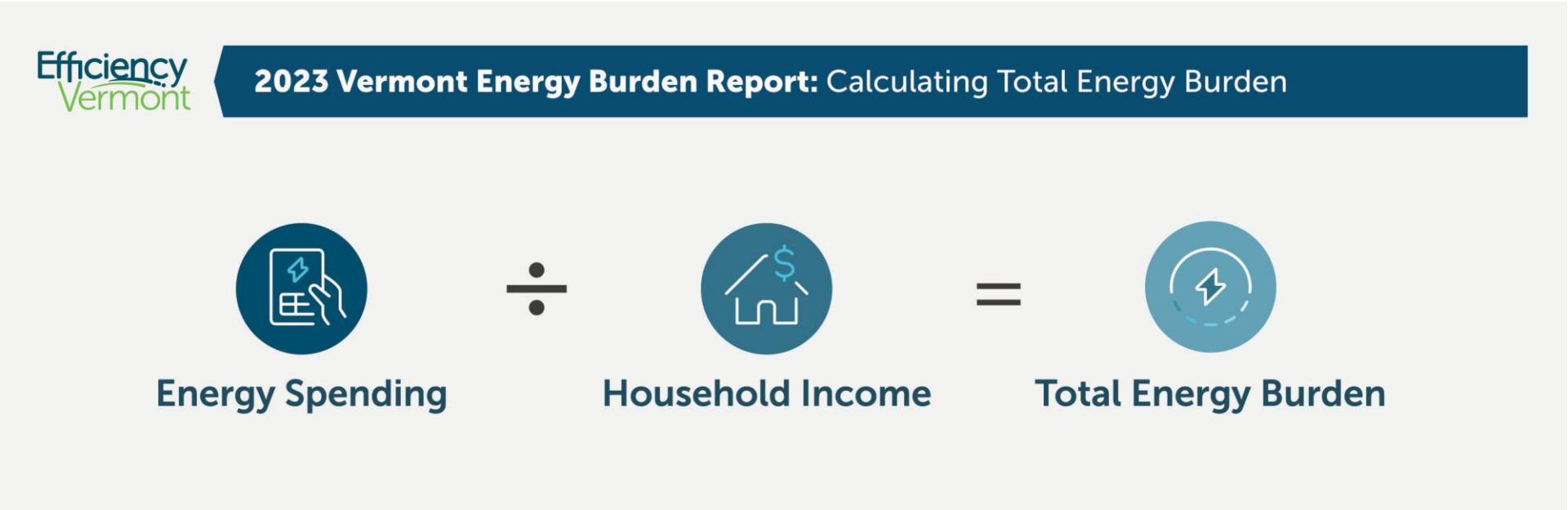
Energy Burden & Customer Perspectives

Kelly Lucci

Director, Strategy & Partnerships

Efficiency Vermont

Energy Burden, Explained



What makes up Energy Burden?

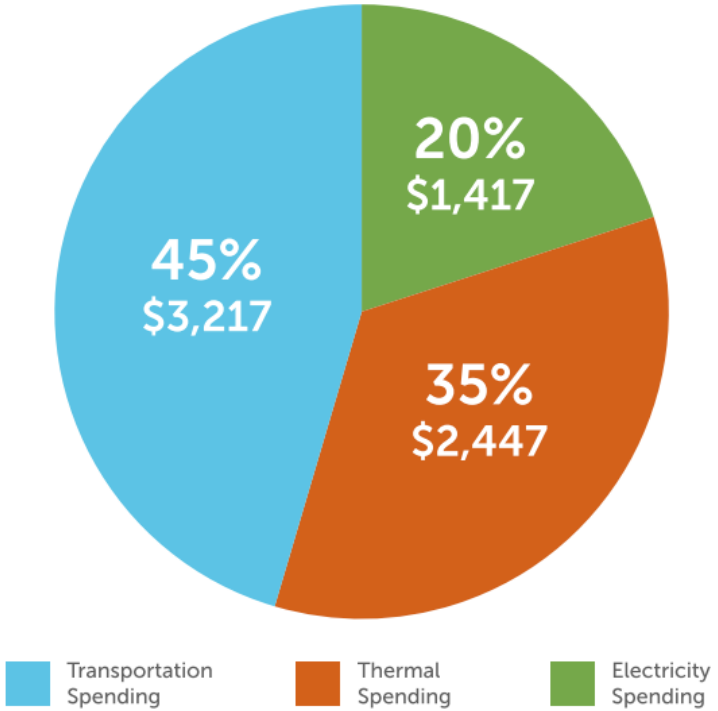
Average spending by category

Efficiencyvermont.com/energyburden

Costs have changed significantly since the 2023 VT Energy Burden Report

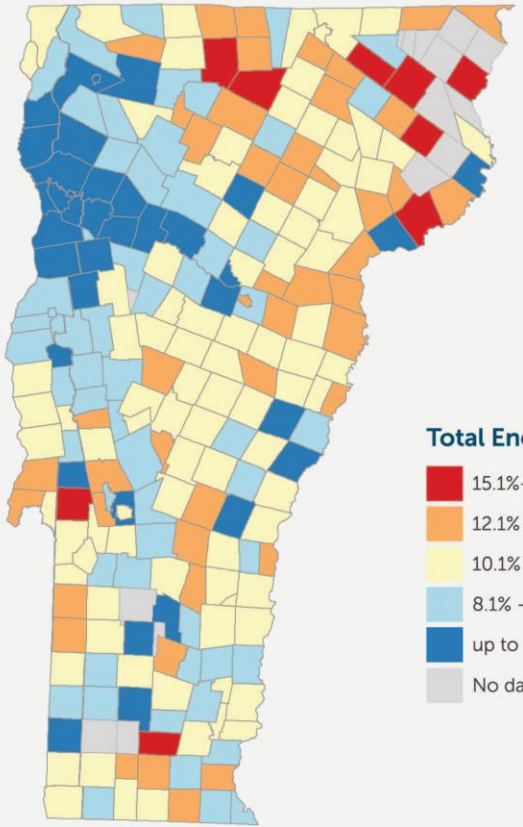
We are updating our methodology for the next iteration to better-reflect the impacts of:

- **electrification**
- **significantly increased fossil fuel price volatility.**



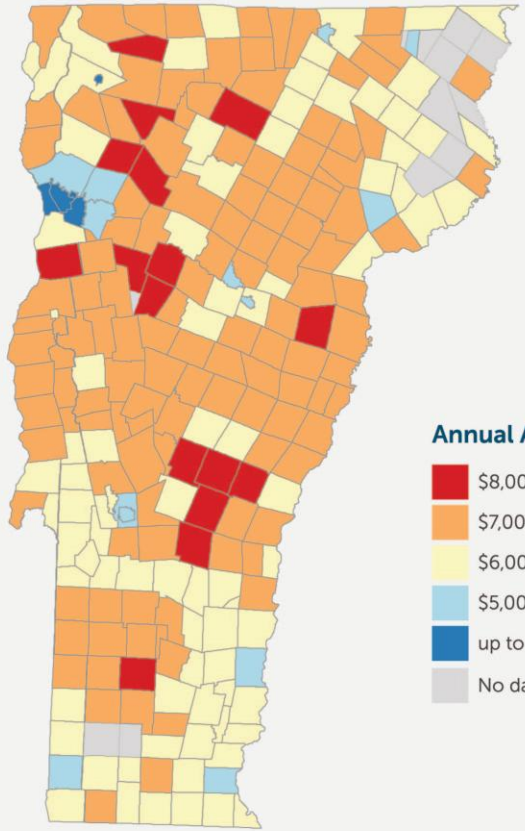
Efficiency Vermont

2023 Vermont Energy Burden Report: Total Energy Burden & Spending by Town



Total Energy Burden

- 15.1%+
- 12.1% - 15%
- 10.1% - 12%
- 8.1% - 10%
- up to 8%
- No data



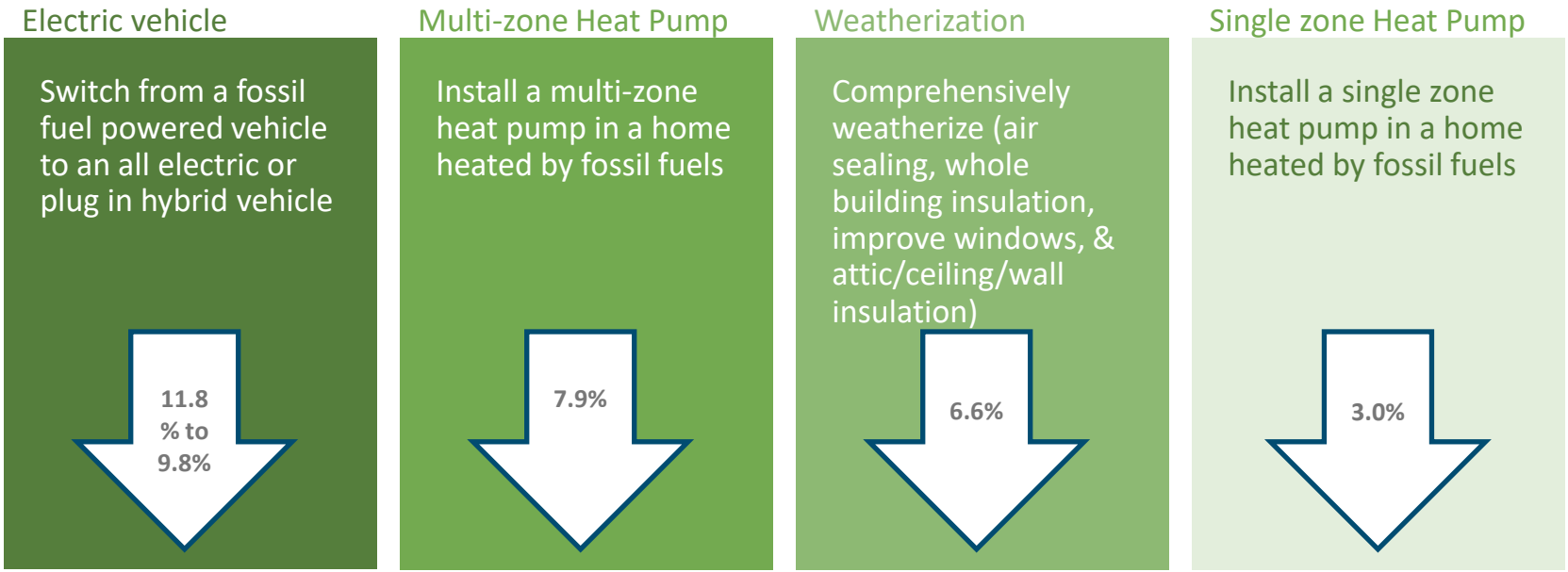
Annual Amount Spent

- $8,001+
- $7,001 - $8,000
- $6,001 - $7,000
- $5,001 - $6,000
- up to $5,000
- No data

Total Energy Burden >15%

Town	Total Households	Median Income (2017-21)	Thermal Burden	Electricity Burden	Transportation Burden	Total Energy Burden
Montgomery	522	$30,500	7%	4%	12%	23%
Charleston	441	$37,798	6%	3%	10%	19%
East Haven	132	$36,250	6%	3%	10%	19%
Lowell	326	$42,000	5%	3%	9%	17%
Concord	478	$41,667	5%	3%	8%	16%
Brighton	558	$42,431	5%	3%	8%	16%
Castleton	1,685	$43,257	5%	3%	7%	15%
Dover	570	$45,625	6%	2%	6%	15%
Bloomfield	115	$46,563	5%	3%	8%	15%
Statewide	256,514	$67,674	4%	2%	5%	11%

Projects to reduce energy burden*



*for a “typical” VT home, with average energy usage and income (2023 VT Energy Burden Report)

“Very grateful and happy about the heat pump…electric only went up about $30 in winter months…down to only one window AC when used to have to use three.”

Low Income Fuel Switch Customer

Bennington County

“Based on your help and advice…I eventually wound up with a fabulous energy efficient pellet stove installed this week! I got a zero percent interest home energy loan…and I got a point of purchase rebate and a Windham county pellet stove incentive to help me with the cost!”

Efficiency Vermont (and Small Scale Renewable Energy Incentive Program) Customer

Windham County

“I can’t afford a heat pump. What else do you have to offer? I am very worried about surviving the upcoming winter. I barely survived the last one.”

Customer

Addison County

Questions?

Kelly Lucci
Director, Strategy & Partnerships

E klucci@efficiencyvermont.com
T (888) 921-5990
D (802) 540-7630

20 Winooski Falls Way, 5th Floor
Winooski, VT 05404

efficiencyvermont.com

ENERGY ACTION NETWORK

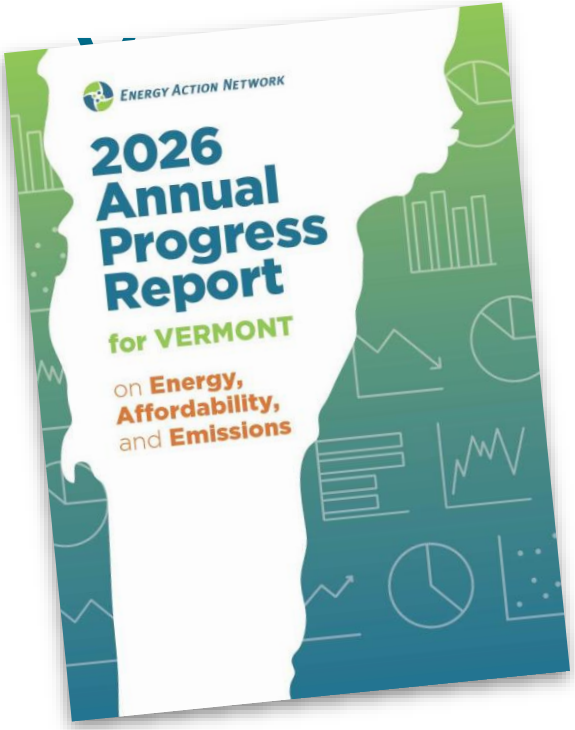
Energy Affordability

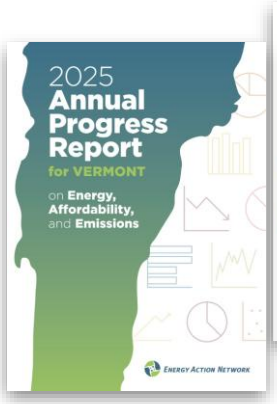
October 14, 2026, REV Conference

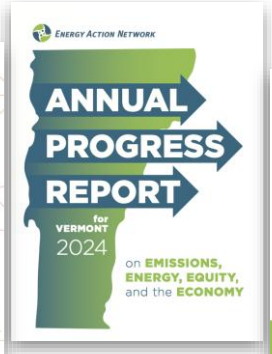
Presented by: Jared Duval, Executive Director, Energy Action Network



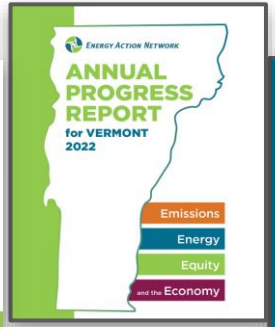
2026 Annual Progress Report for

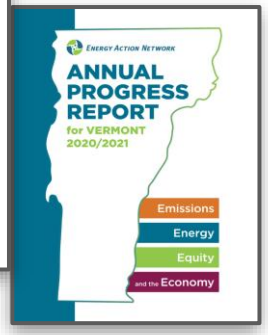


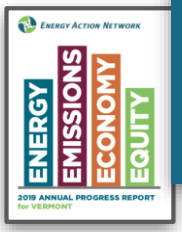


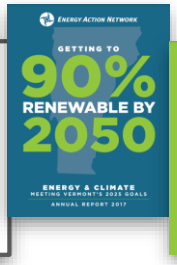




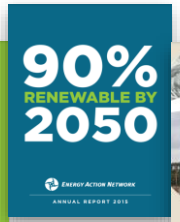


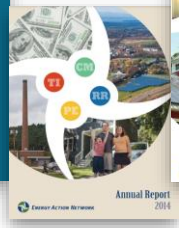


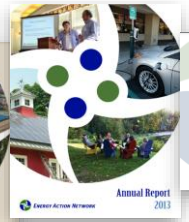


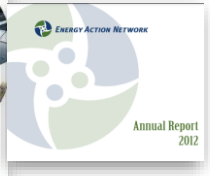












Affordability

Vermont has the fourth highest household energy costs in the U.S.

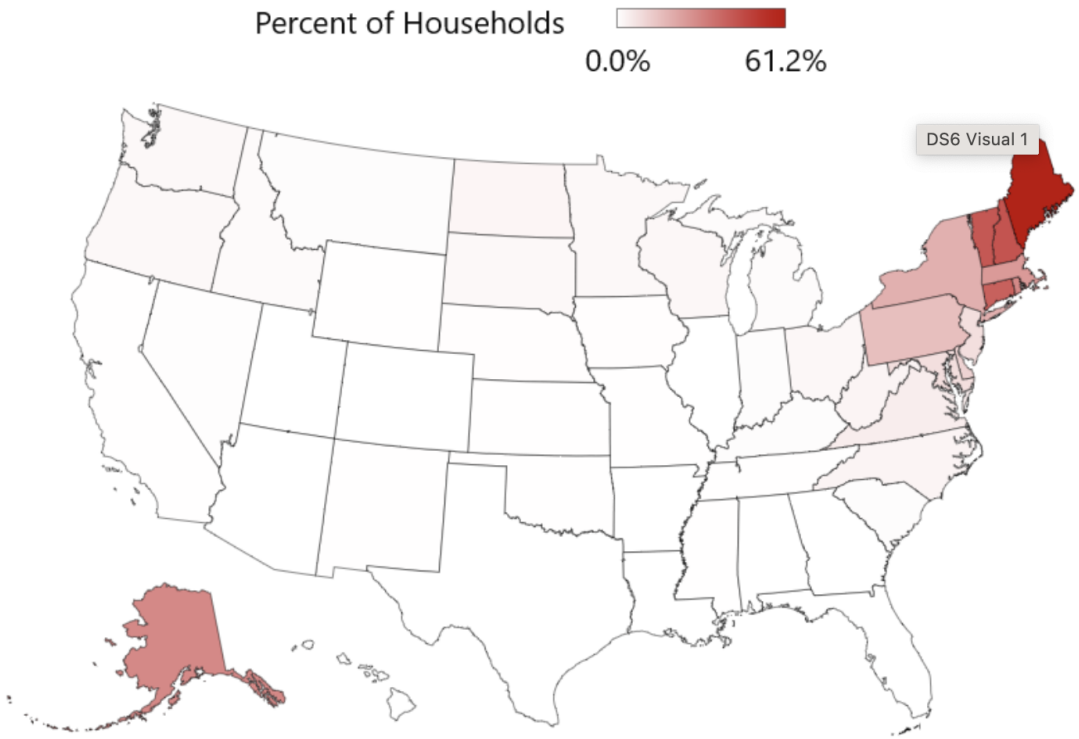
National rank	State	Average annual household energy expenditures, 2024
#1	Maine	$7,803
#2	New Hampshire	$7,541
#3	Alaska	$7,413
#4	**Vermont**	**$7,321**
#5	Connecticut	$7,162
	U.S. Average:	**$5,529**

Source: EPRI, The Energy Wallet, 2025.
Note: Household energy costs include transportation fuels, heating fuels, and electricity.

ENERGY ACTION NETWORK

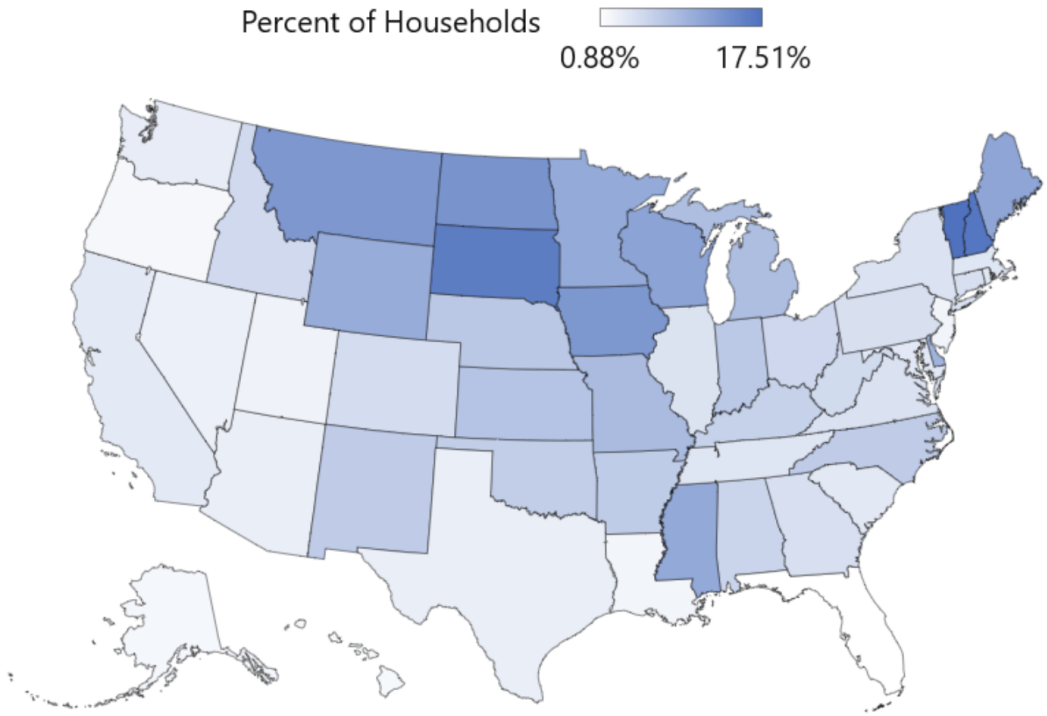
Report Page 3

Figure 1: Percent of Households Using Fuel Oil/Kerosene for Primary Space Heating by State in 2020



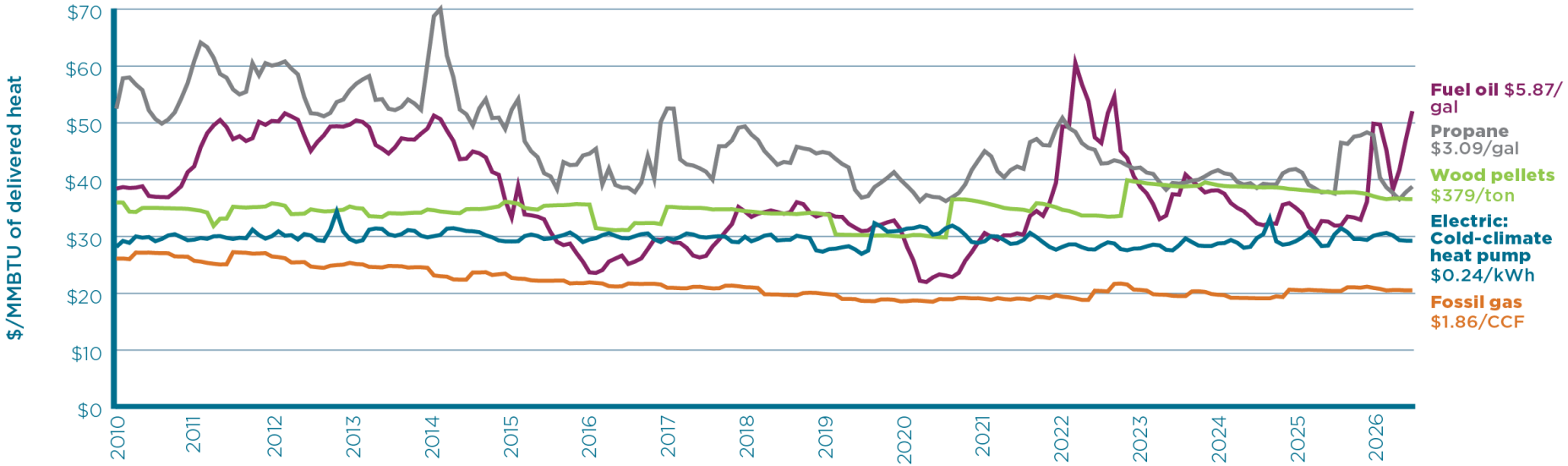
Source: Buildings Hub Demographics Dashboard

Figure 3: Percent of Households Using Propane for Primary Space Heating by State in 2020



Source: Buildings Hub Demographics Dashboard

Cost comparison of different heating fuel options over time, adjusted for inflation



Sources: Fuel oil and propane prices: VT Department of Public Service, "Retail Prices of Heating Fuels," and EIA. Fossil gas: VGS. Electricity: EIA. Wood pellets: Biomass Energy Research Center (2026 prices estimated based on a small sample of Vermont suppliers and average prices collected by Maine and New Hampshire).

Notes: Electricity prices presented here are a statewide average but vary by utility territory. The reason propane is usually more expensive per MMBTU than fuel oil but less expensive on a per gallon basis is because propane has a lower energy content per gallon (66% of the energy of fuel oil per gallon). Prices shown are adjusted for inflation and shown in August 2026 dollars, using the U.S. BLS Consumer Price Index.

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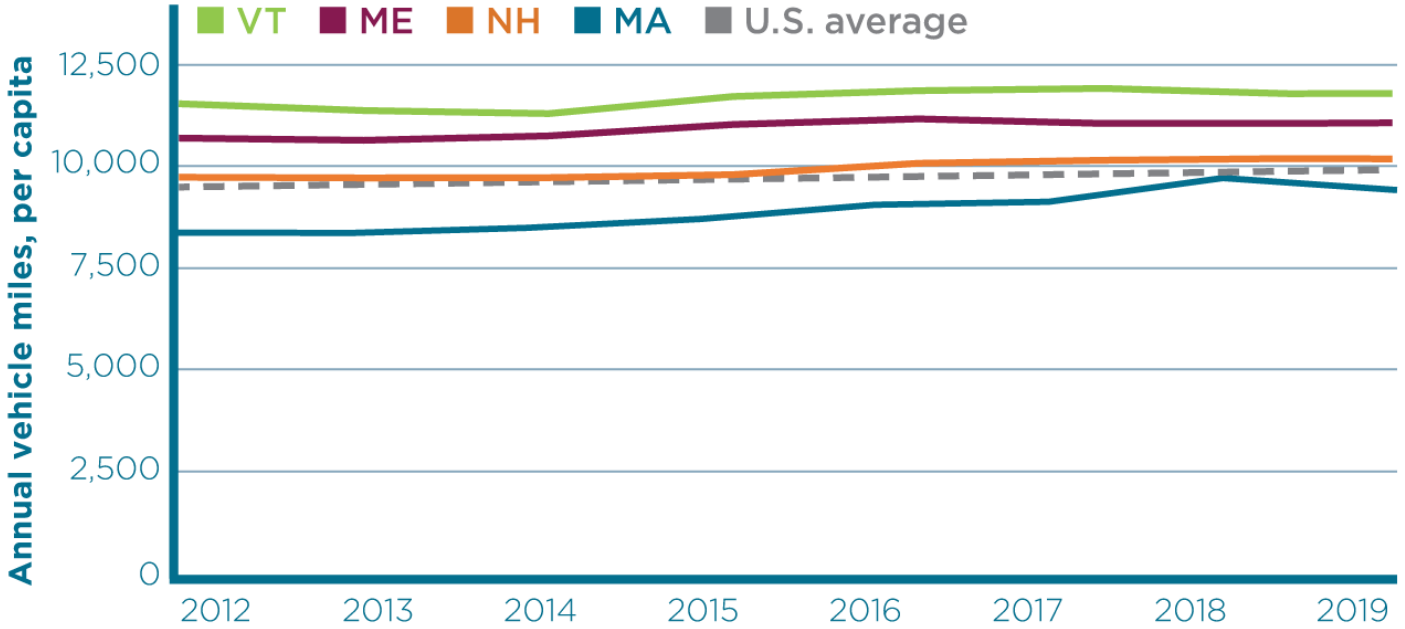
Vehicle miles traveled, per capita



Source: Federal Highway Authority: Highway Statistics, 2019; U.S. Census Bureau, 2021.

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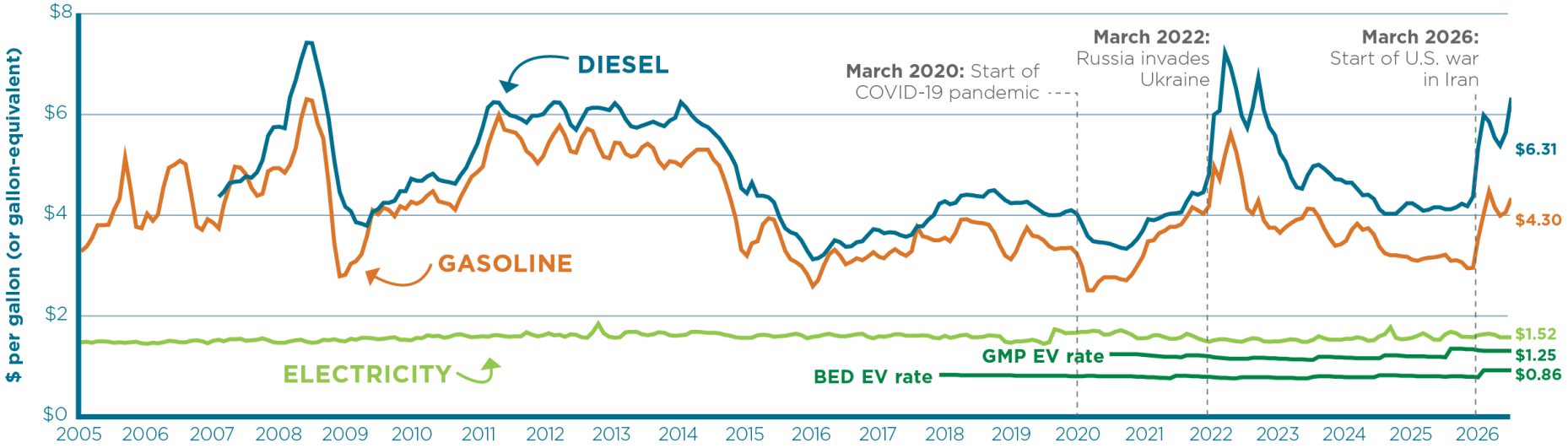
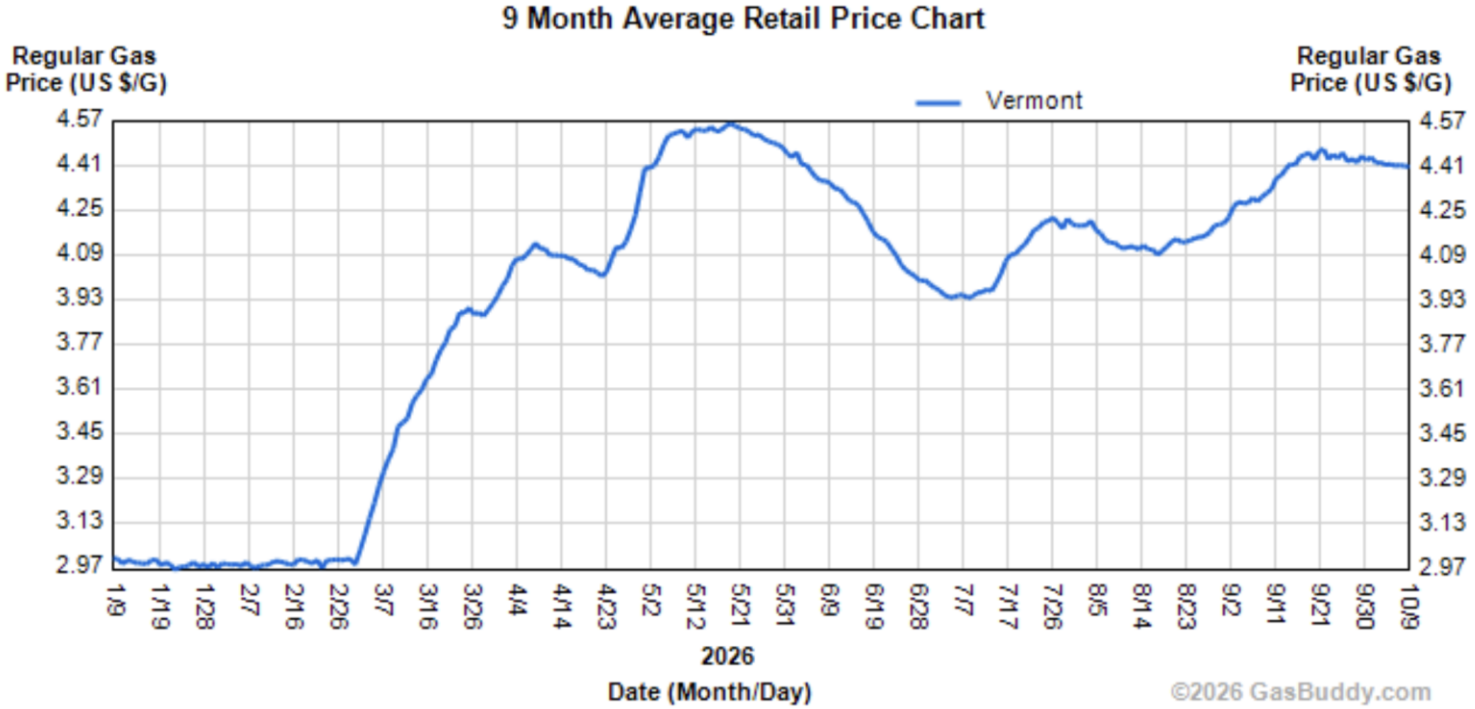
Prices of different transportation fuels over time in Vermont, adjusted for inflation

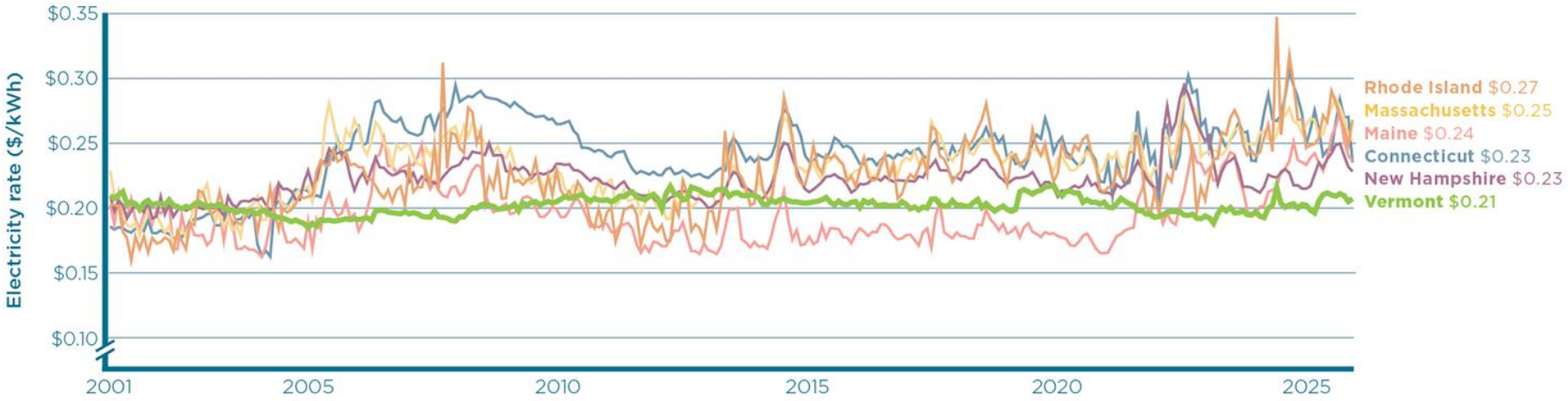


Sources: Vermont electricity, gasoline, and diesel prices: Energy Information Administration, 2026, and Vermont electric utility PUC filings; Off-peak EV rates: Green Mountain Power and Burlington Electric Department, 2026.
Notes: Electricity prices shown in light green are statewide average residential prices. Prices are adjusted for inflation and shown in August 2026 dollars, using the U.S. Bureau of Labor Statistics Consumer Price Index.

ENERGY ACTION NETWORK


9 Month Average Retail Price Chart
Regular Gas Price (US $/G)
Regular Gas Price (US $/G)
Vermont
4.57
4.41
4.25
4.09
3.93
3.77
3.61
3.45
3.29
3.13
2.97
1/9
1/19
1/28
2/7
2/16
2/26
3/7
3/16
3/26
4/4
4/14
4/23
5/2
5/12
5/21
5/31
6/9
6/19
6/28
7/7
7/17
7/26
8/5
8/14
8/23
9/2
9/11
9/21
9/30
10/9
2026
Date (Month/Day)
©2026 GasBuddy.com

Average monthly retail electricity rates by New England state, adjusted for inflation



Sources: U.S. Energy Information Administration, Average retail price of electricity, all sectors, 2026; U.S. Bureau of Labor Statistics, CPI for all urban consumers, 2026.
Note: All prices are adjusted for inflation and presented in May 2026 dollars.

ENERGY ACTION NETWORK

Report

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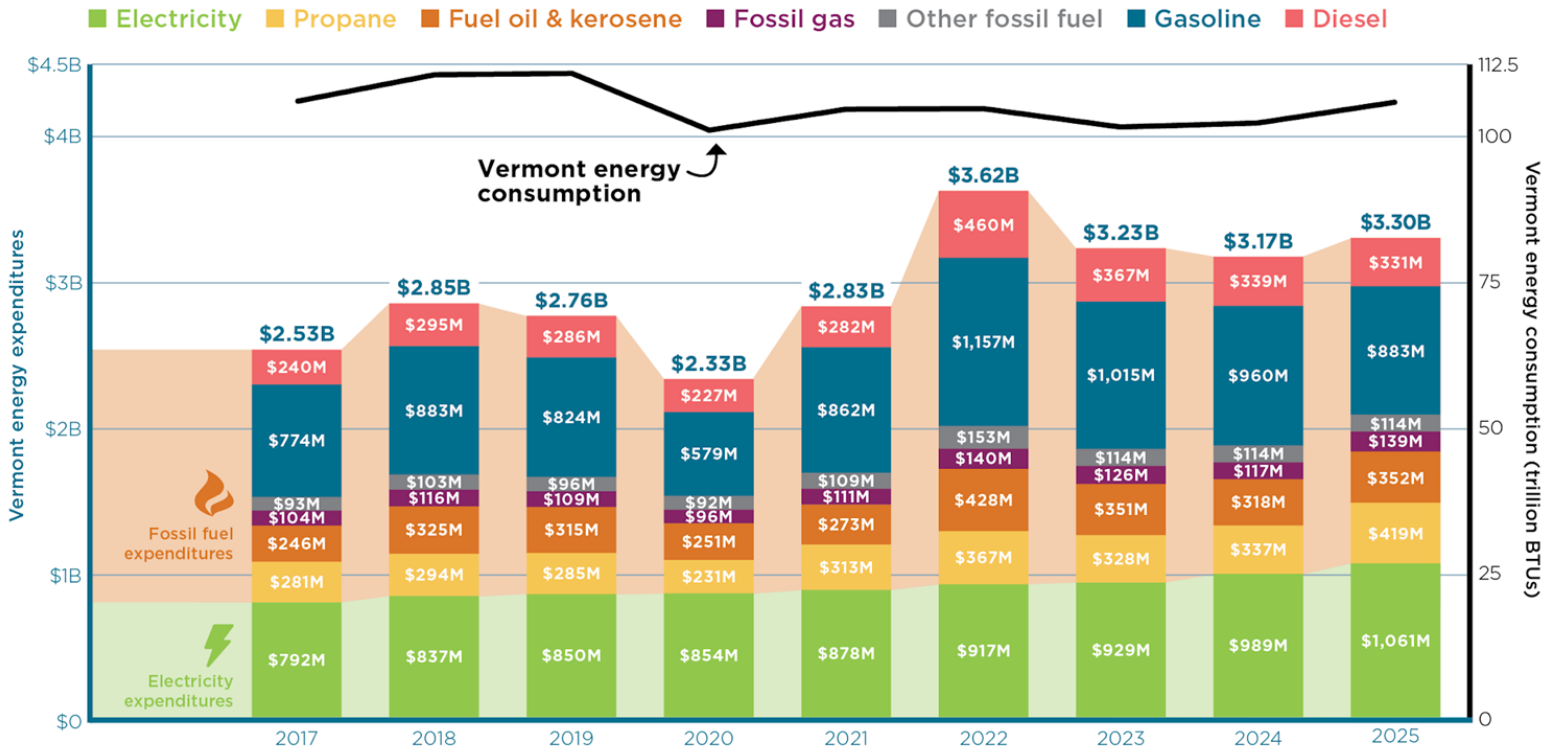
Vermont energy expenditures and consumption

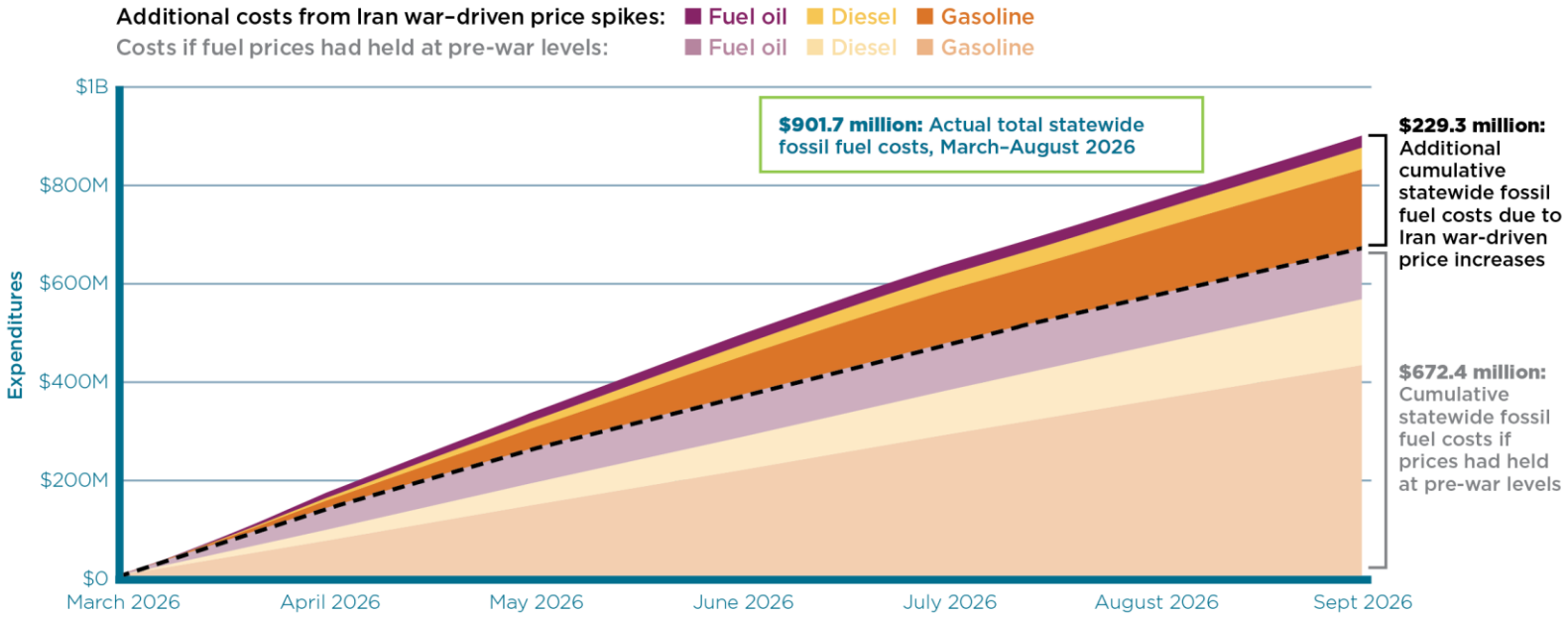


Sources: Gasoline and diesel sales volumes from Vermont Department of Taxes via the Joint Fiscal Office; fuel oil, kerosene, and propane sales volumes from Vermont Department of Taxes; fossil gas sales volumes and prices from VGS; electricity expenditures and other fuel prices from Vermont Department of Public Service and EIA.

Notes: Wood expenditure and consumption data is not shown on this graph due to data limitations. For context, in the last year in which reliable data exists (2022), VEIC estimated wood consumption to be 12.66 TBTU. The estimate of fossil fuel expenditures includes sales of gasoline, diesel, propane, fuel oil and kerosene, fossil gas, and "other fossil fuels" in Vermont. "Other fossil fuels" include aviation gasoline, jet fuel, hydrocarbon gas liquids, lubricants, asphalt and road oil, and special naphthas. Fossil gas is also referred to as "natural gas," "utility gas," "pipeline gas," "fracked gas," or "methane." Prices shown are nominal and not adjusted for inflation.

ENERGY ACTION NETWORK

Cumulative fossil fuel costs in VT, pre-war price scenario vs. actual prices, March–August 2026



Sources: Daily gasoline and diesel prices: GasBuddy, 2026. Estimated statewide daily gallons of gasoline and diesel: Vermont Department of Taxes via Joint Fiscal Office, 2026. Fuel oil prices: U.S. Energy Information Administration (EIA). 2026; Vermont Department of Public Service, 2026. Estimated statewide fuel oil consumption: Vermont Department of Taxes, 2026. Heating degree days: NOAA, 2026.
Note: For additional data and analysis, please see EAN's blog on this topic: eanvt.org/blog/2026-fossil-fuel-price-increases.

ENERGY ACTION NETWORK

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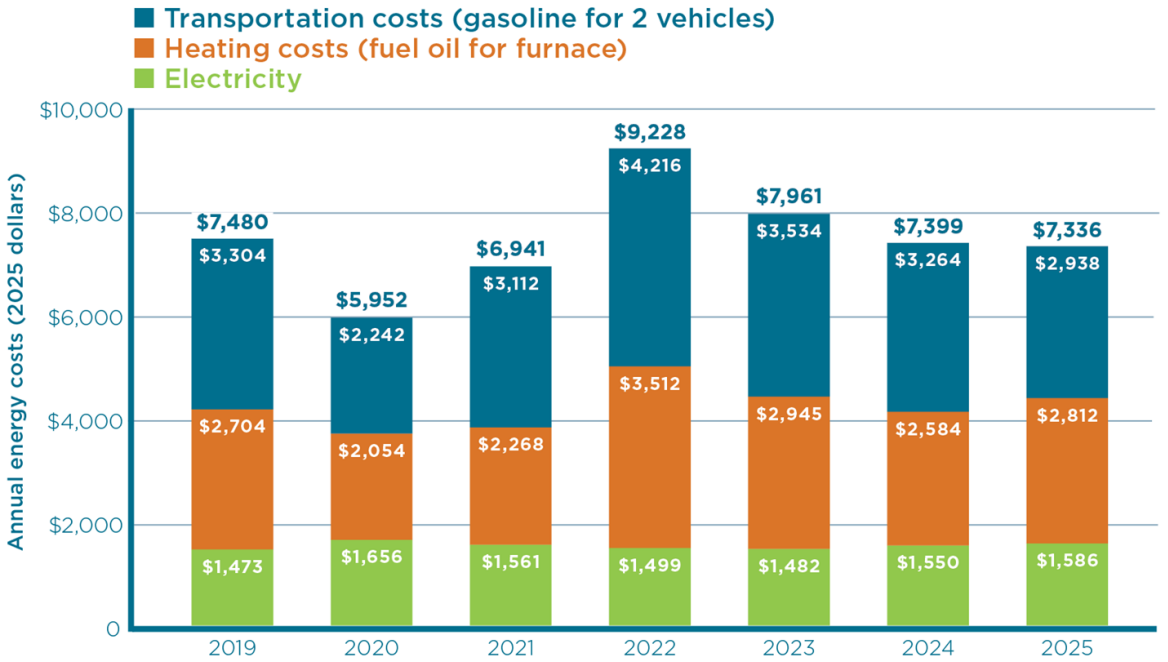
Annual energy costs for an example Vermont household, 2019–2025, adjusted for inflation



Sources: Transportation costs estimated for a household with 2 gasoline vehicles based on VT average annual VMT per capita (11,209) from the Federal Highway Administration, average MPG assumption (23.4 MPG) from the UVM Transportation Research Center and Vermont Agency of Transportation "Vermont Transportation Energy Profile 2021," and average annual gasoline prices for New England from EIA. Heating costs for a fuel oil furnace estimated based on average Vermont heating load of 83 MMBTU (adjusted based on annual heating degree days), average fuel oil furnace efficiency from the Efficiency Vermont "Technical Reference Manual (TRM), Program Year 2024," and average VT fuel oil prices from the Department of Public Service. Electricity costs estimated based on average monthly electricity consumption and average annual electricity prices from EIA. **Note:** Costs shown are adjusted for inflation and shown in 2025 dollars using the U.S. BLS Consumer Price Index.

ENERGY ACTION NETWORK

Monthly and annual additional costs from gasoline price increases by vehicle type for an average driver

VEHICLE	Fuel efficiency	Gallons used per year (kWh for EV)	Cost at $3/gal ($0.22/kWh for EV) *(monthly / annual)*	Additional cost from gasoline price increases	
				From $3 to $4/gal *(monthly / annual)*	From $3 to $4.50/gal *(monthly / annual)*
2025 Ford F-150	21 MPG	712	$178 / $2,135	+$59 / +$712	+$89 / +$1,067
Vermont Average	23 MPG	639	$160 / $1,916	+$53 / +$639	+$80 / +$958
2025 Toyota Prius	52 MPG	287	$72 / $862	+$24 / +$287	+$36 / +$431
2025 Ford F-150 Lightning	68 MPGe	0 (7,407 kWh)	$137 / $1,648	$0 / $0	$0 / $0
2025 Nissan Leaf	111 MPGe	0 (4,537 kWh)	$84 / $1,009	$0 / $0	$0 / $0

Sources: VTrans, Vermont Transportation Energy Profile, 2021. MPG values from Fueleconomy.gov. Federal Highway Administration, 2024. Electricity rate from 2026 Vermont electric utility rate filings. **Note**: Electricity rate of $0.22 represents the average 2026 Vermont electricity rate weighted by retail sales. An average driver in Vermont drives 14,945 miles per year, per Federal Highway Administration data. This value is different than VMT per capita (11,209 miles per year) because there are 0.75 drivers per capita in Vermont.

ENERGY ACTION NETWORK

Cost of 200 gallons of fuel oil at different prices		
February 23 cost ($3.98/gal)	Cost at $6/gal	Cost increase per 200 gallons
$796	$1,200	$404

Sources: Fuel oil price, U.S. Energy Information Administration (EIA), 2026.

ENERGY ACTION NETWORK

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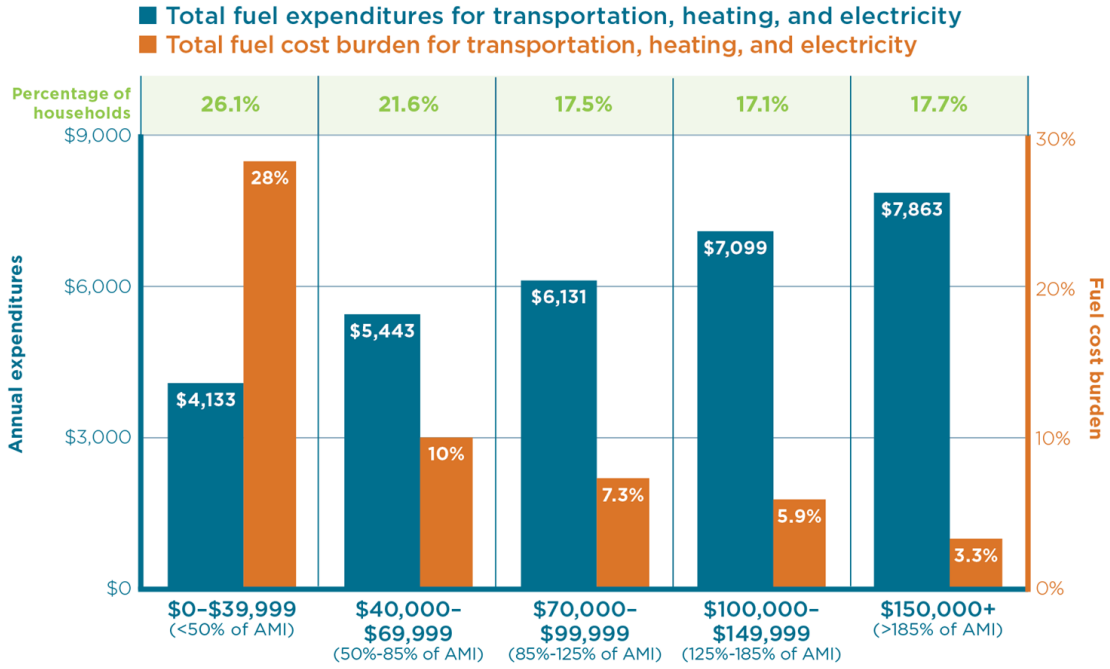
Vermont* combined average heating, electricity, and transportation fuel expenditures and burden by income level, 2020–2024



Sources: Heating and electricity: U.S. Census Bureau, 2020-2024 American Community Survey 5-year Public Use Microdata Samples for Vermont. Transportation: U.S. Bureau of Labor Statistics, Consumer Expenditure Surveys, average expenditures for the Northeastern U.S., 2023-2024.

ENERGY ACTION NETWORK

***Notes:** Heating and electricity spending data is Vermont-specific. Due to data limitations, transportation cost and burden data represent averages for the Northeast United States; this almost certainly underrepresents the costs and burdens facing Vermonters. For example, Vermont has the highest per capita vehicle miles traveled (VMT) of all Northeast states. Fuel cost burden refers to the share of annual household pre-tax income spent on energy (fuels and electricity). This expenditure data is for fuels and electricity only and does not include equipment or maintenance costs. % of area median income (AMI) values are approximate.

Thank you!



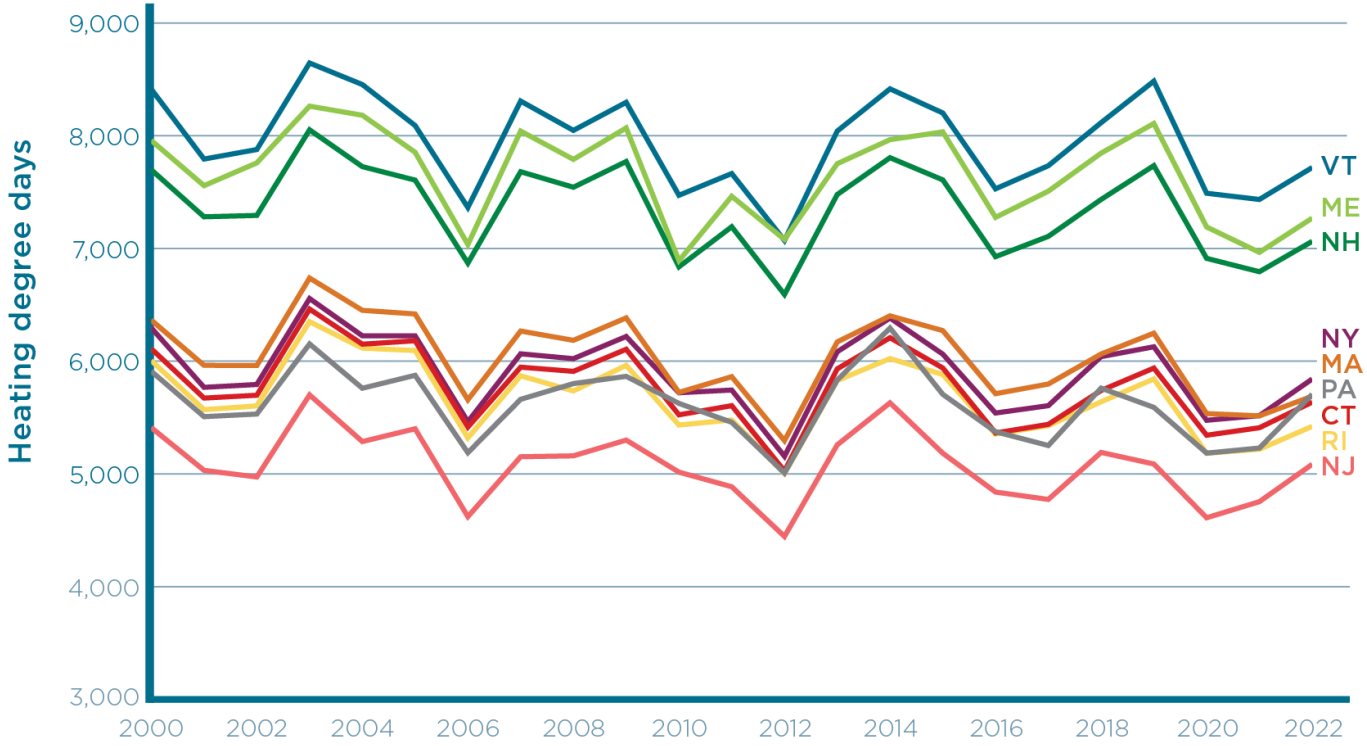
Questions or feedback welcome!

jduval@eanvt.org

And read the full report online!

eanvt.org/2026-annual-report

Annual heating degree days by state, 2000-2022



Source: National Centers for Environmental Information, Climate at a Glance Statewide Time Series, 2023.

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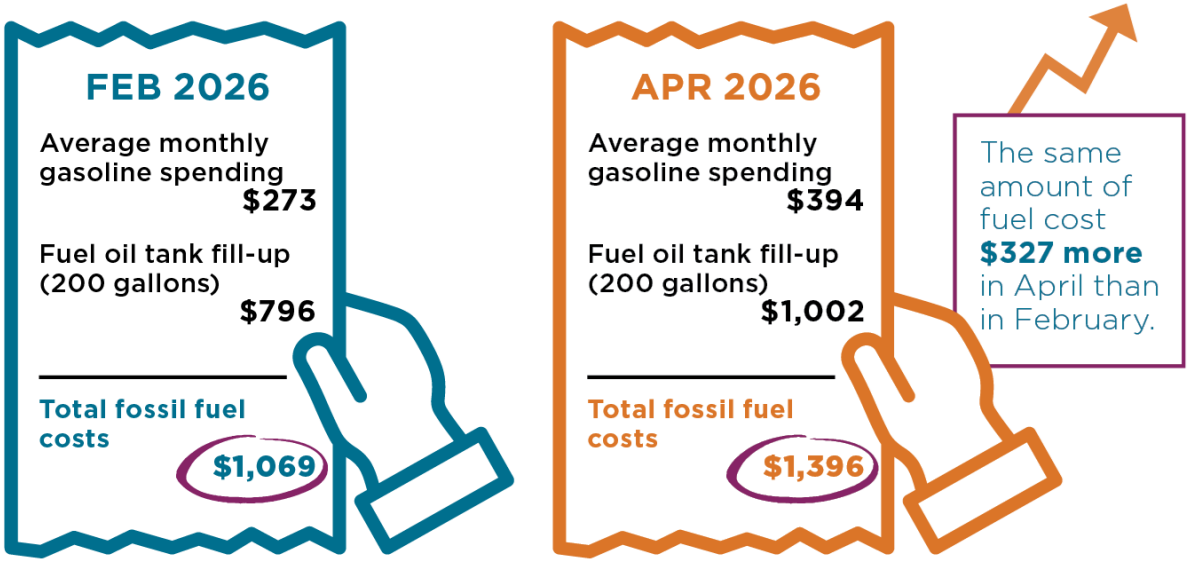
Average Vermont household fossil fuel expenses, February vs. April 2026



Sources: Average monthly gasoline costs based on average fuel efficiency (23.4 MPG) from UVM Transportation Research Center and Vermont Agency of Transportation, "Vermont Transportation Energy Profile 2021"; Vermont number of people per household (2.28): U.S. Census Bureau, American Community Survey, 2020-2024; Vermont regular gasoline prices: GasBuddy, 2026; Vermont average annual vehicle miles traveled (VMT) per capita (11,209): Federal Highway Administration, Highway Statistics 2024, Table PS-1 (11,209 in 2024); average Vermont fuel oil prices: Vermont Department of Public Service, 2026.

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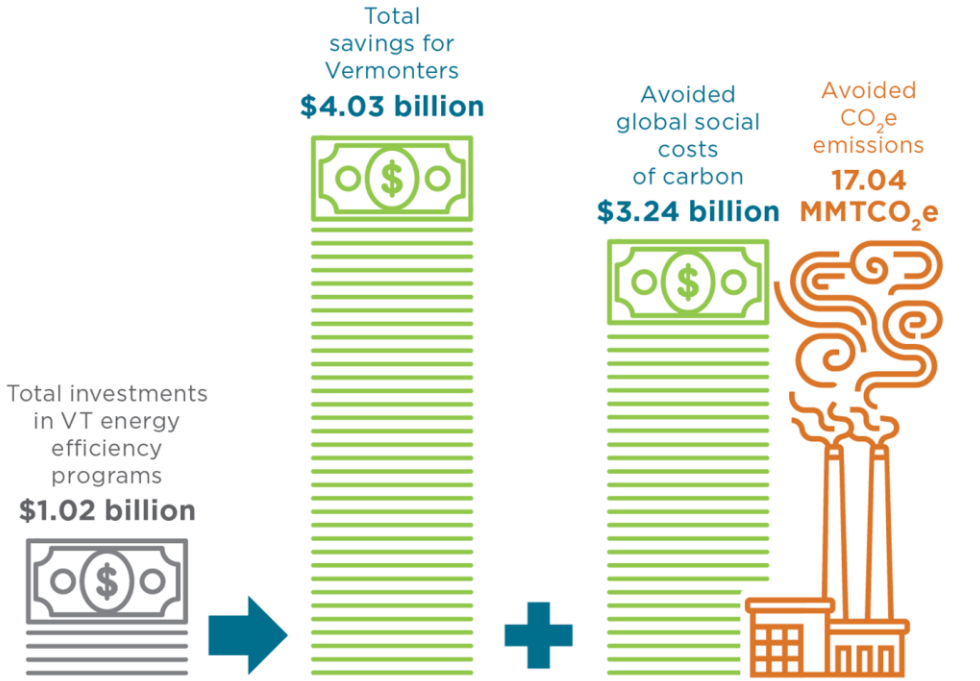
Lifetime return on investment from Vermont energy efficiency programs



Source: Efficiency Vermont, 2026; Burlington Electric Department, 2023; VGS, 2026.

Notes: BED values from 2000-2021; EVT and VGS values from 2000-2024. Social cost of carbon based on estimate of $190 per metric ton (EPA, "Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances," 2023). Savings, avoided costs, and avoided emissions incorporate the modeled lifetime of the measures. Avoided CO_2e emissions are calculated by energy efficiency utilities using marginal emissions of the ISO-NE mix, rather than of VT's electricity portfolio.

ENERGY ACTION NETWORK

Efficiency

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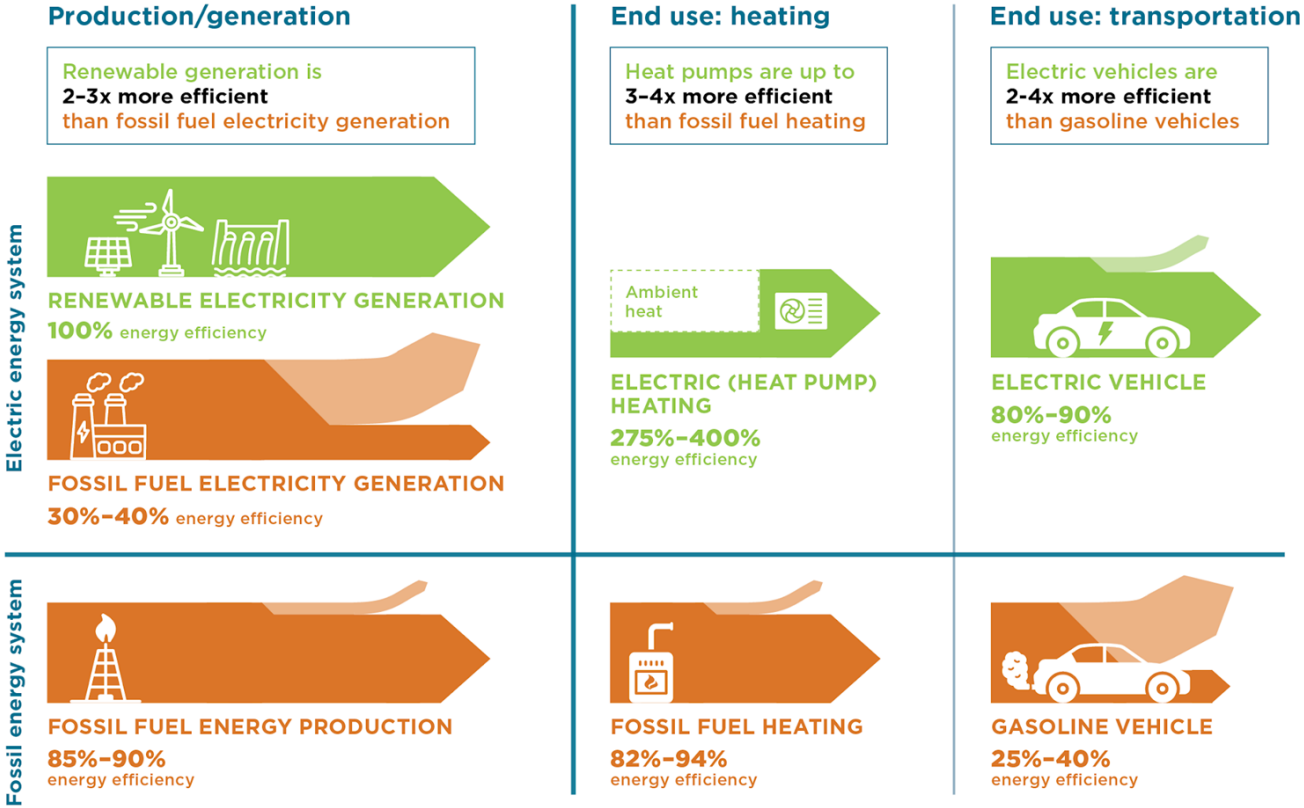
Efficiency of fossil fuel vs. electricity-based energy systems

Each infographic in this table shows energy input on the left and energy output on the right, with useful energy shown in the darker color and waste heat in the lighter color.



Sources: RMI, "The Incredible Inefficiency of the Fossil Energy System," 2024; fossil fuel heating efficiency: NMR Group, "Vermont Single-Family Existing Homes Baseline Study," 2023.
Notes: For sake of simplicity, this table does not show transportation or transmission losses. Transportation losses from fossil production to combustion are estimated to be 2.3%; electricity transmission and distribution losses are estimated to be approximately 5%, and up to 8% at times of peak demand.

ENERGY ACTION NETWORK

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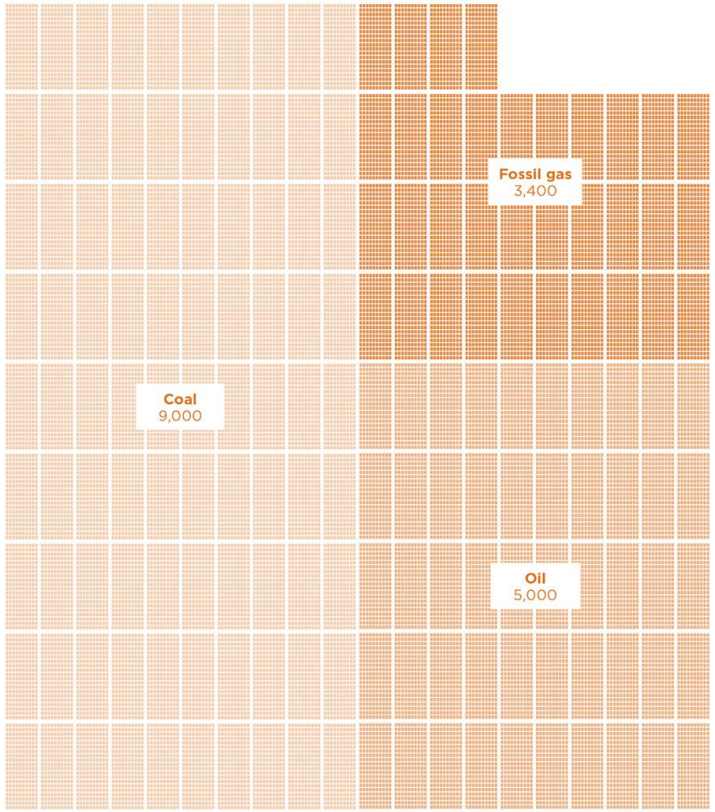
Global material intensity: fossil fuel vs. electricity-based energy system



17,400 million metric tons of material extracted per year, **current fossil fuel global energy system**

The fossil fuel system requires over **60x more material extraction by weight** than an electrified energy system.

vs.

278 million metric tons of material extracted per year, **fully electrified global energy system**



Cobalt: 0.24
Lithium: 0.8
Silicon: 2.6
Nickel: 4
Graphite: 6.8
Copper: 26
Aluminium: 38
Steel: 200

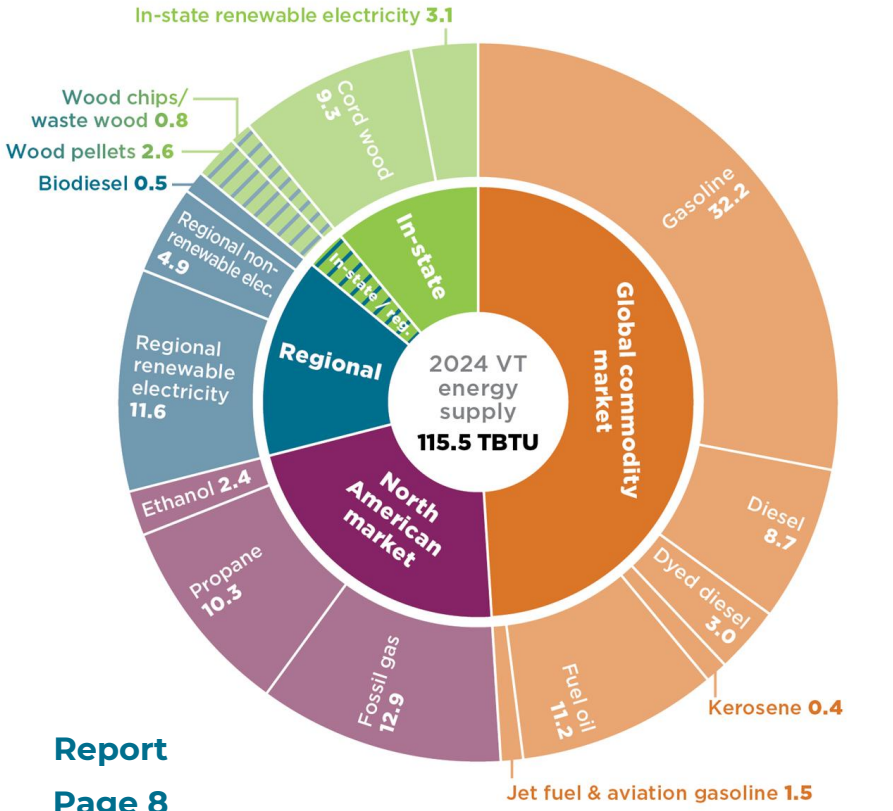
Sources: "Material and Resource Requirements for the Energy Transition," Energy Transitions Committee, July 2023. "The Electrotech Revolution," Ember, 2025.

Notes: The materials estimate for the electricity-based energy system accounts for all elements of the system that would need to be built out, including generation (e.g., solar panels, wind turbines), transmission upgrades, storage, and end-use technologies (e.g., heat pumps, electric vehicles). The fossil fuel extraction only accounts for units of fuel — not any of the requisite infrastructure, pipeline maintenance and repairs, or end-use technologies. If fossil fuel system extraction were accounted in the same way as the electricity-based system, the total amount of extraction for the fossil fuel system would be even larger.

ENERGY ACTION NETWORK

Energy Dependence vs. Freedom

Where Vermont's energy supply comes from



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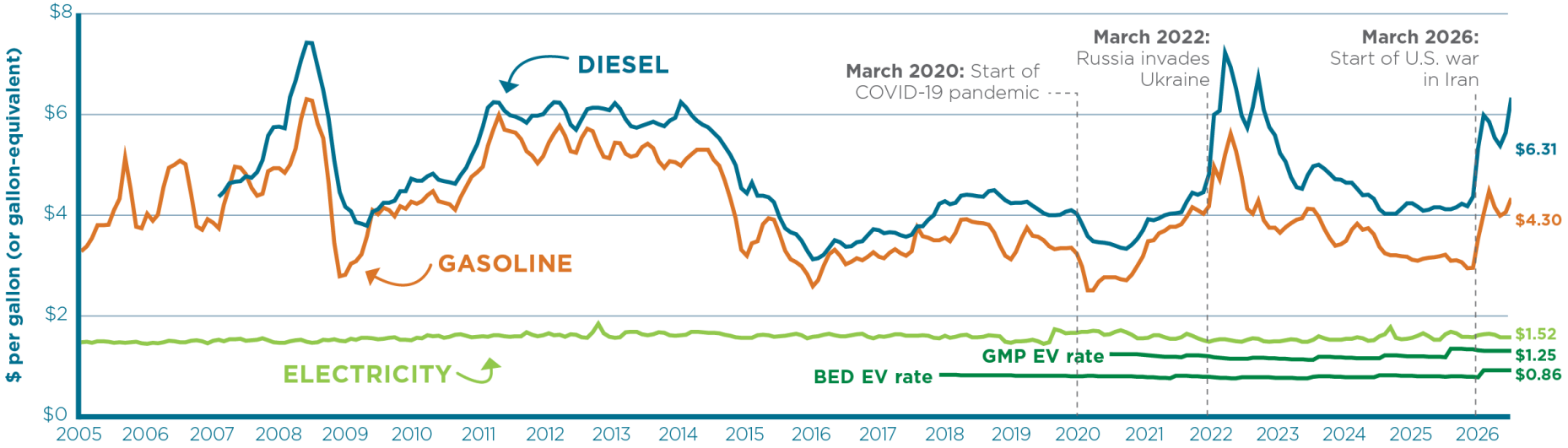
Sources: Gasoline and diesel consumption from Vermont Joint Fiscal Office, 2026; ethanol consumption estimate derived from Vermont Joint Fiscal Office, 2026, and U.S. EIA; fuel oil, kerosene, dyed diesel, and propane consumption from Vermont Department of Taxes, 2026; fossil gas consumption from VGS, 2026; electricity consumption from Vermont Department of Public Service; wood consumption from VEIC, "Wood Fuels Report," 2022; biodiesel, jet fuel, and aviation gasoline consumption from EIA.
Note: "Regional" is defined as originating from the northeastern U.S. or eastern Canada.

ENERGY ACTION NETWORK

Prices of different transportation fuels over time in Vermont, adjusted for inflation



Sources: Vermont electricity, gasoline, and diesel prices: Energy Information Administration, 2026, and Vermont electric utility PUC filings; Off-peak EV rates: Green Mountain Power and Burlington Electric Department, 2026.
Notes: Electricity prices shown in light green are statewide average residential prices. Prices are adjusted for inflation and shown in August 2026 dollars, using the U.S. Bureau of Labor Statistics Consumer Price Index.

ENERGY ACTION NETWORK

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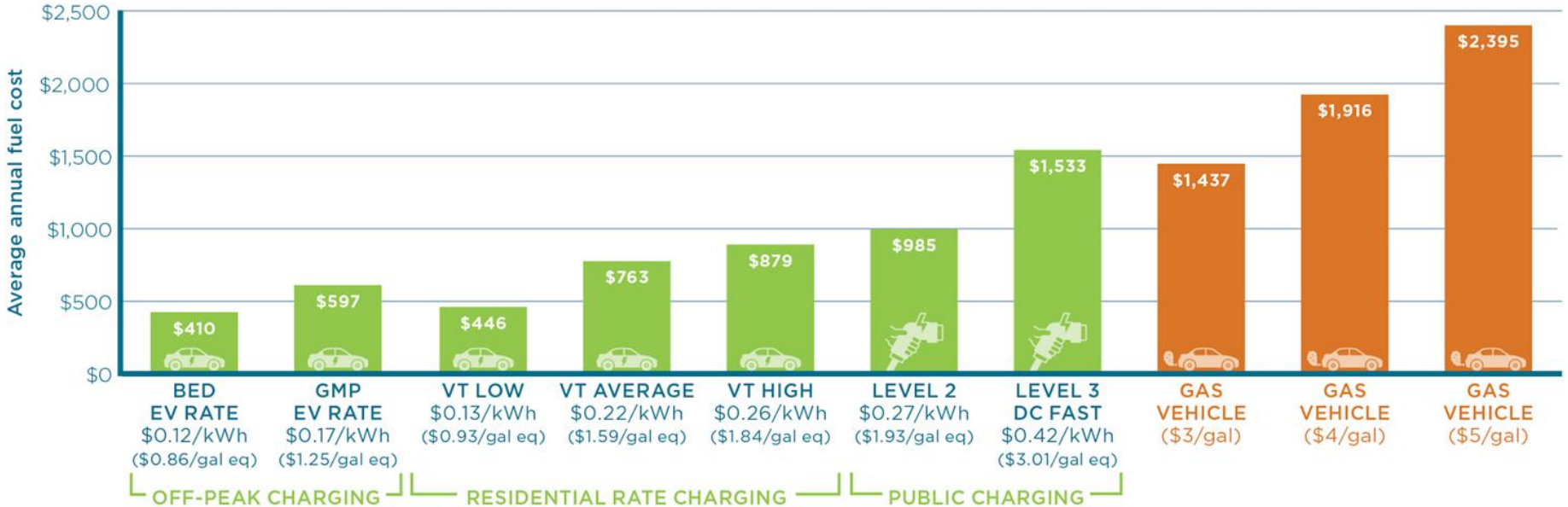
Annual vehicle fueling costs in VT, electricity vs. gasoline, 2026



Sources: Electricity rates from Vermont electric utility rate filings; Average public charger rates from Vermont Weights & Measures EVSE 2025 Summary (2026). Public charging rates include sales tax (Tax Foundation, 2026), but do not include session fees, which are sometimes added. Annual costs based on Vermont average VMT of 11,209 miles from the Federal Highway Administration Highway Statistics 2024, Table PS-1, and average vehicle efficiency rates from the UVM Transportation Research Center and Vermont Agency of Transportation, "Vermont Transportation Energy Profile 2021." **Notes:** As of 2026, Burlington Electric Department (BED) and Green Mountain Power (GMP) are the only two VT utilities that offer specific EV charging rates, though other utilities are also developing and piloting EV rates or offering bill credits. $/gallon equivalent ($/gal eq) denotes how the price per kWh would compare to the price per gallon of gasoline at average electric vehicle efficiency of 3.27 miles per kWh (UVM Transportation Research Center and Vermont Agency of Transportation, "Vermont Transportation Energy Profile 2021"). In addition to electricity rates, utility bills also include fees and charges, which are not shown on this graph. It is not uncommon for charges and fees to make up 10% of total electricity bills.

ENERGY ACTION NETWORK

How far does $10 take you? Electric vs. gasoline vehicles

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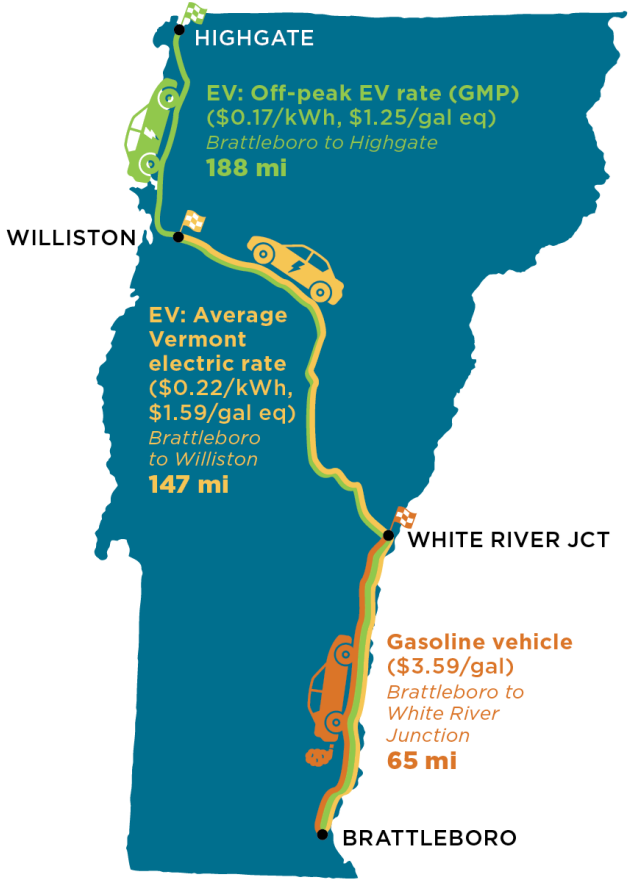

Sources: Average gas (23.4 MPG) and electric vehicle (3.27 mi/kW) efficiencies from UVM Transportation Research Center and Vermont Agency of Transportation, "Vermont Transportation Energy Profile 2021"; electric rates from Vermont utility regulatory filings; gasoline price from EIA.
Notes: Electricity prices are current Vermont utility rates as of June 1, 2026. Gasoline price is a year-to-date average price as of June 1, 2026.

ENERGY ACTION NETWORK

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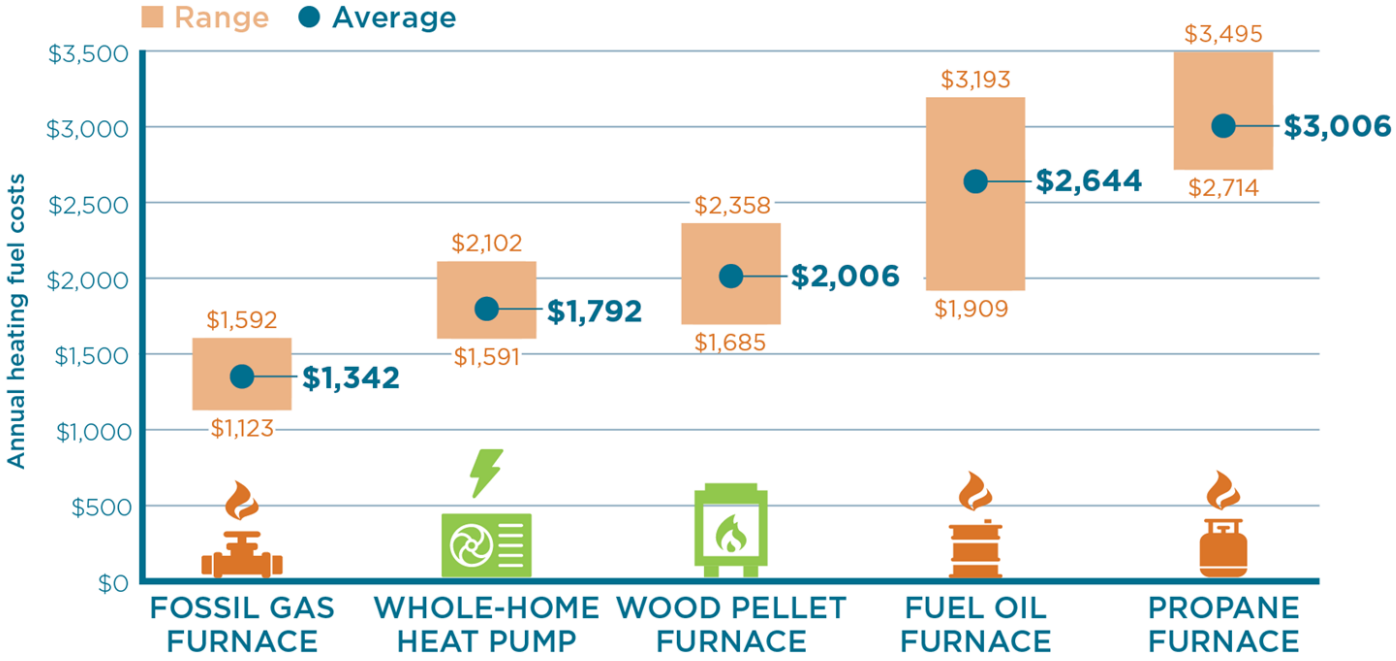
Annual heating costs by fuel type in VT, range and average, forced hot air systems, 2021-2025



Sources: Average monthly fuel prices: EIA; Vermont Department of Public Service, Retail Prices of Heating Fuels; VGS. Average efficiency rates of heating equipment: Efficiency Vermont "Technical Reference Manual (TRM), Program Year 2024." Annual fuel costs assume average household heating load of 83 MMBtu, adjusted to account for annual population-weighted heating degree days from NOAA Climate Prediction Center.

Note: This graph compares heating fuel costs for ducted (forced air) heating systems. Costs are inclusive of any applicable charges, not merely rates. Equipment purchase costs vary widely and are not represented. To learn about applicable equipment incentives, visit efficiencyvermont.com. Prices shown are nominal and not adjusted for inflation.

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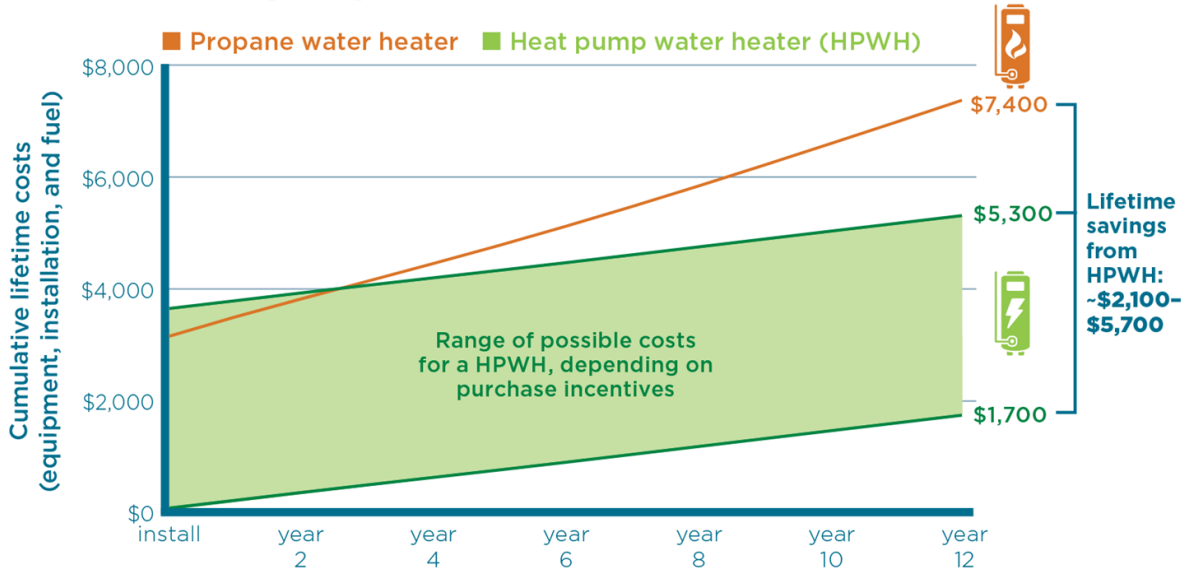
Lifetime cost comparison: heat pump water heater vs. propane water heater



Sources: Annual energy load, efficiency, and equipment lifespan assumptions from the Efficiency Vermont "Technical Reference Manual (TRM), Program Year 2024." Upfront cost data from VT Office of Economic Opportunity, 2026. Prices shown are in 2026 dollars and reflect projections from EIA's "Annual Energy Outlook 2026," covering 2026–2037.

Notes: While installed costs of propane water heaters can vary, there is greater variation in heat pump water heater installed costs due to the availability of incentives. Installed costs for heat pump water heaters reflect different incentives for various income levels, including from Efficiency Vermont and the Weatherization Assistance Program, which have historically brought the upfront cost as low as $0 for income-eligible customers. Heat pump water heaters cool and dehumidify the space where they operate. This graph does not include the "heating penalty" whereby a heat pump water heater increases the heating load in the winter, nor does it include cooling and dehumidification benefits in the summer. The net energy impact of a water heating technology varies widely based on the efficiency of one's space heating equipment, and whether one would be using equipment to cool or dehumidify.

ENERGY ACTION NETWORK

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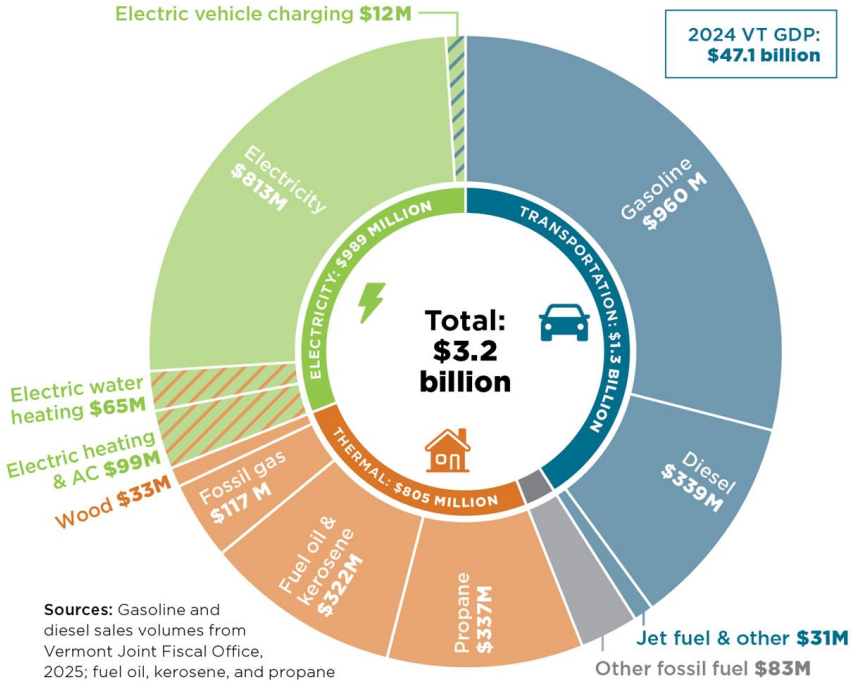
Total Vermont fuel expenditures by sector, 2024

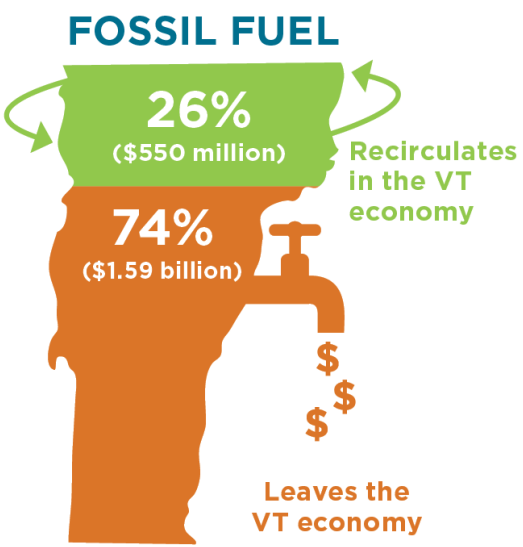


Sources: Gasoline and diesel sales volumes from Vermont Joint Fiscal Office, 2025; fuel oil, kerosene, and propane sales volumes from Vermont Department of Taxes, 2025; fossil gas sales volumes and prices from VGS, 2025; all other fossil fuel prices from Vermont Department of Public Service and EIA; electricity expenditures from Vermont Department of Public Service; wood and "other fossil fuels" expenditures from EIA. "Other fossil fuels" includes asphalt and road oils, lubricants, special naphthas, and hydrocarbon gas liquids. VT GDP: FRED, Federal Reserve Bank of St. Louis, 2026. Note: Energy spending represents 6.8% of Vermont's total economic activity, calculated using Vermont's 2024 Gross Domestic Product (GDP). Fossil fuel spending takes up 4.6% of Vermont's GDP. Electric space and water heating is an EAN estimate based on data from the Vermont Department of Public Service, the U.S. Census Bureau American Community Survey, Efficiency Vermont, and EIA. Electricity used for transportation is estimated by EAN based on the number of electric vehicles registered in VT.

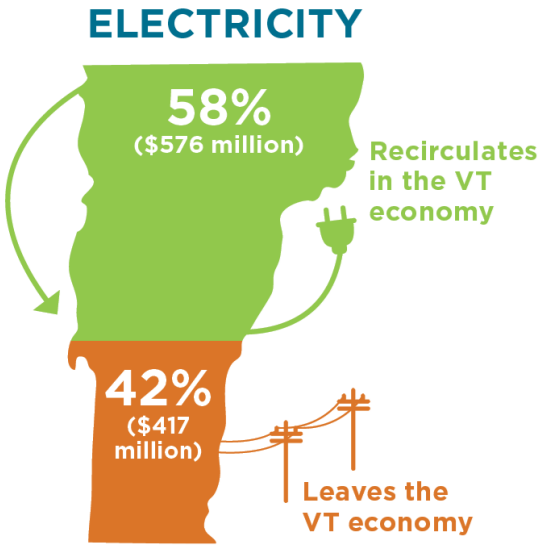
ENERGY ACTION NETWORK

Energy and the Economy

In- and out-of-state dollar flows by energy source, 2021–2025



Sources: Fossil fuel spending: VT Department of Taxes, 2026; VGS, 2026; EIA, 2026; Dollar recirculation share: EAN, "Dollar Flow Analysis of Energy Expenditures in Vermont," 2026.
Notes: Data shown are an average of 2021-2025. This graph includes spending on thermal and transportation fuels only.



Sources: Electricity spending: Vermont Department of Public Service and VT electric utilities. Dollar recirculation share: EAN, "Dollar Flow Analysis of Energy Expenditures in Vermont," 2026. **Notes**: Data shown are an average of 2021-2025. The methodology for the dollar recirculation share was updated in January 2025 to account for out-of-state transmission costs.

ENERGY ACTION NETWORK

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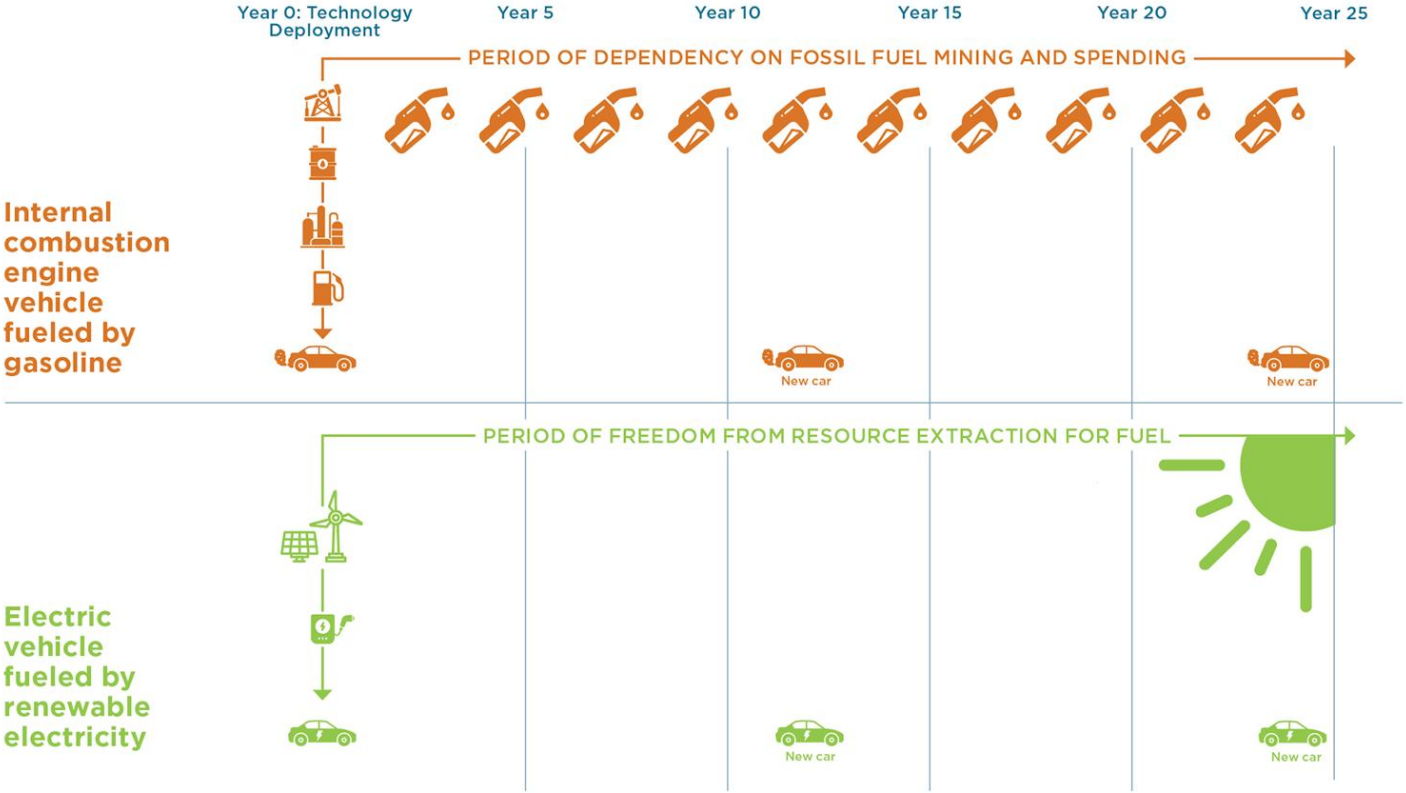
Fossil fuel dependency vs. renewable energy freedom

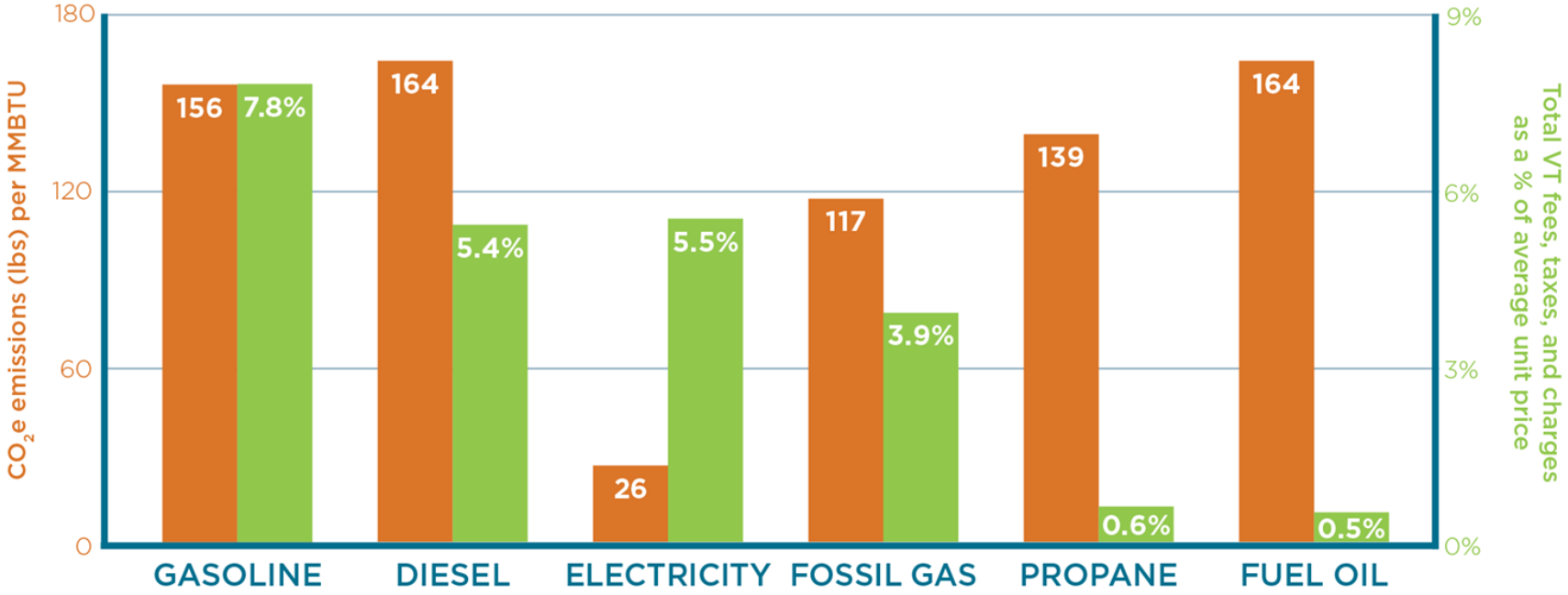
After deployment, electric technology powered by renewables provides years of energy freedom; fossil fuel equipment requires constant mining and expenditure on fuel



Source: "The Electrotech Revolution," Ember, 2025.

ENERGY ACTION NETWORK

Some of Vermont's most polluting energy sources pay the lowest fees, taxes, and charges



Sources: Thermal fuels fees and taxes: Vermont Department of Taxes, 2026; thermal fuels prices: Vermont Department of Public Service, 2026, VGS, 2026; gasoline and diesel fees and taxes: Vermont Department of Motor Vehicles, 2026; gasoline and diesel prices: EIA, 2026; 2026 Energy Efficiency Charge for electricity and fossil gas: PUC Determination of 2026 Energy Efficiency Charge Rates; electricity prices: Vermont utility filings with the Vermont Public Utility Commission, 2026; emissions factors for fossil fuels: EPA; emissions factor (0.09 lbs CO_2e/kWh) for Vermont electricity calculated based on VT Agency of Natural Resources "Vermont Greenhouse Gas Emissions Inventory and Forecast " (2025).

ENERGY ACTION NETWORK

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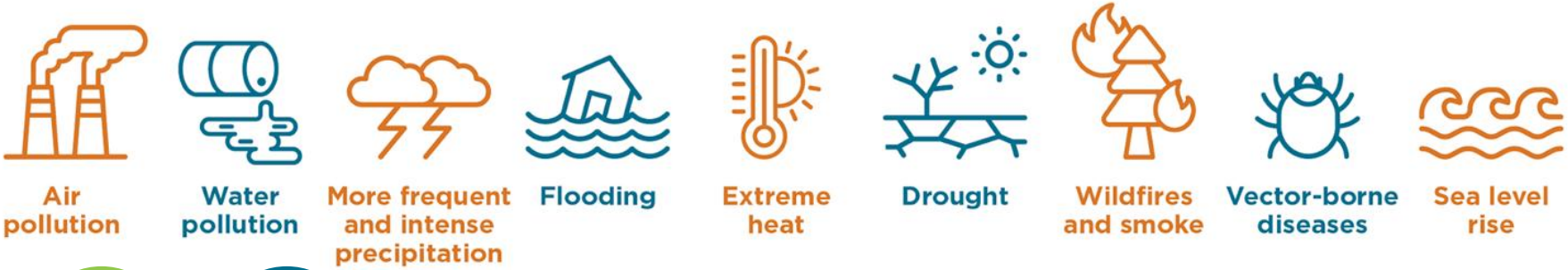
Energy, Health, and the Environment

Harms to human health and the environment from fossil fuels and climate disruption



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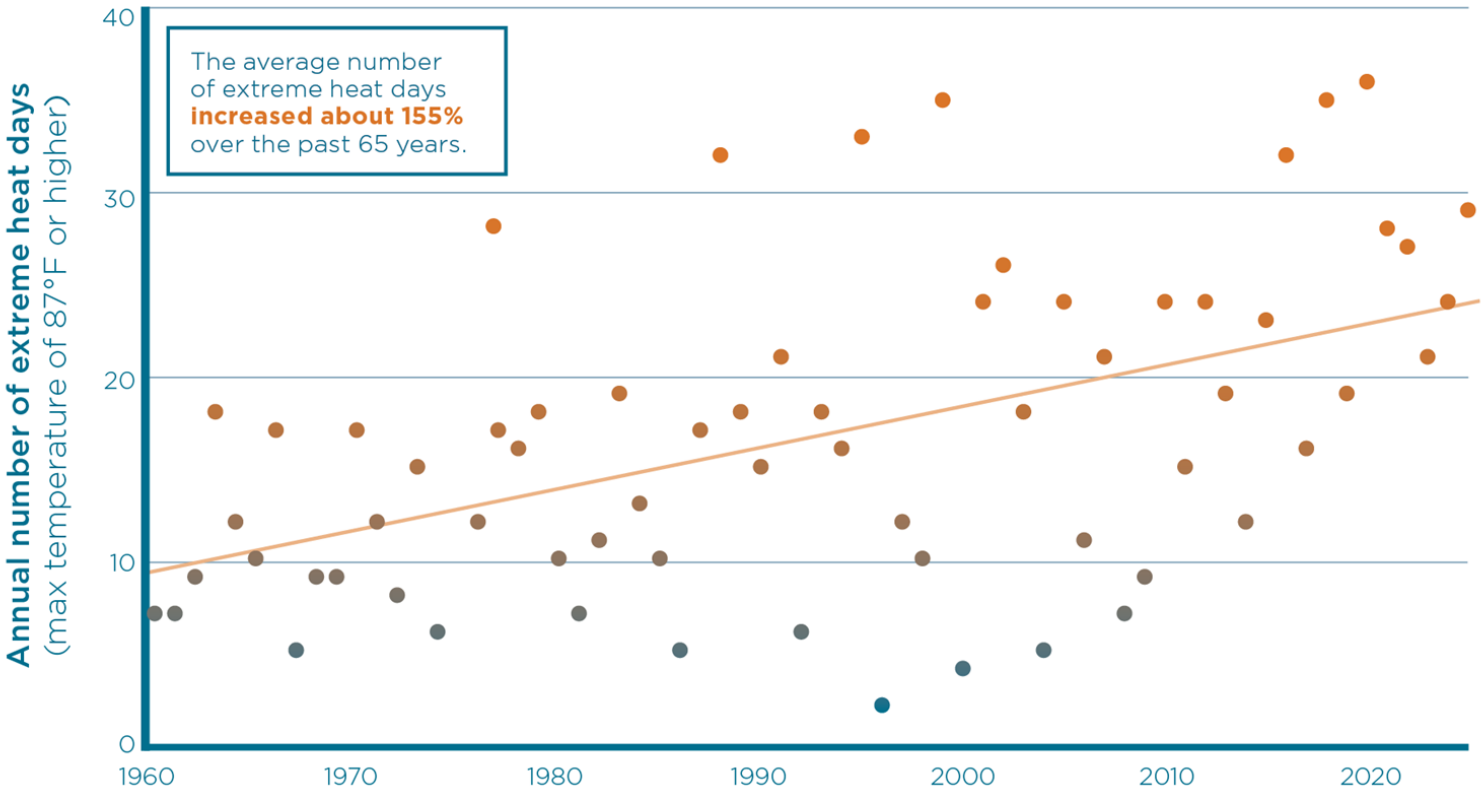
Extreme heat days in Burlington, VT, 1960–2025



Source: NOAA, Burlington International Airport Weather Station, 2026.
Note: In Vermont, extreme heat is considered 87° F (31° C) or higher (Vermont Department of Health).

ENERGY ACTION NETWORK

Key Questions

1. Affordability:

How does energy affect affordability?

2a. Efficiency:

How can we use less energy while getting the same output?

2b. Efficiency:

How do different energy choices compare on mining and materials?

3. Energy Dependence:

What degree of dependence vs. freedom do different energy choices provide?

4. Energy and the Economy:

How do different energy choices affect the Vermont economy?

5. Energy, Health, and the Environment:

What are the most significant impacts on human health and the environment of our current reliance on fossil fuels?

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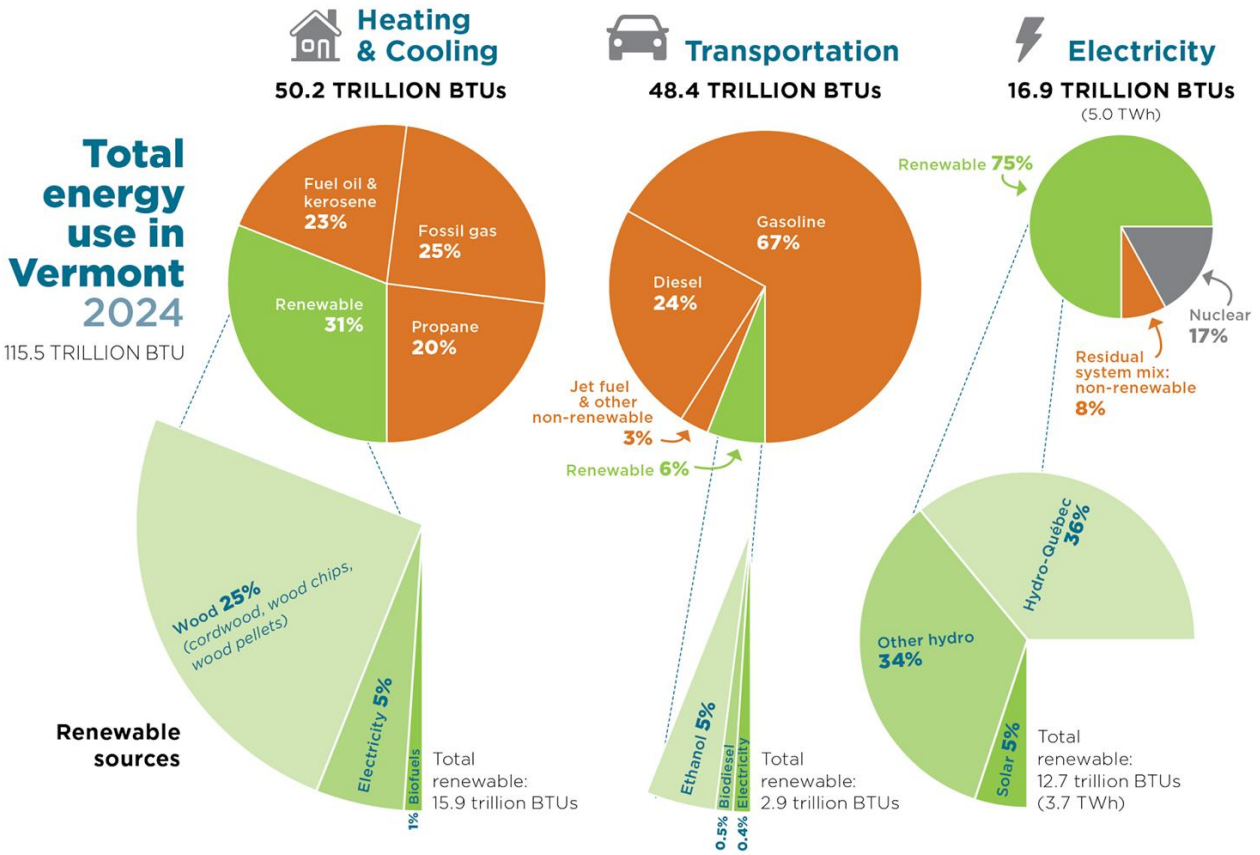
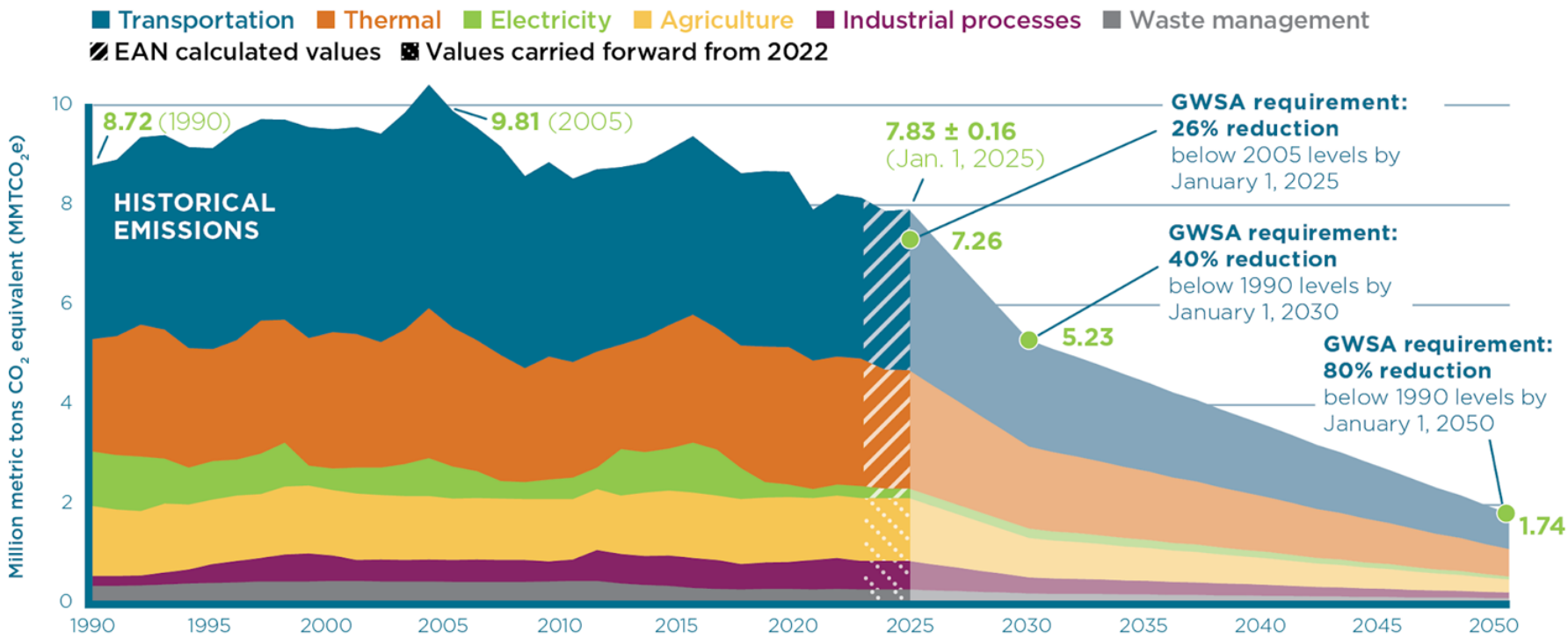


Sources: EIA State Energy Data System, 2026; Efficiency Vermont, 2026; Vermont Department of Public Service, 2026; Vermont Department of Taxes, 2025.

Notes: Percentages may not sum exactly to 100% due to independent rounding. The electricity pie chart does not include electricity used for for heating and cooling and transportation purposes, as that electricity usage is shown in the respective heating and cooling and transportation pie charts. Electric space and water heating is an EAN estimate based on data from the Vermont Department of Public Service, the U.S. Census Bureau American Community Survey, Efficiency Vermont, and EIA. Electricity used for transportation is an EAN estimate based on multiple VT EV data points. The electricity pie chart shows Vermont's electricity portfolio after accounting for Renewable Energy Credits (RECs). One result of this is that wind and biomass generation in Vermont do not show up as electricity resources, since RECs from those resources are primarily sold out of state. Fuel oil includes a small amount of kerosene, which accounts for 0.7% of total thermal energy use.

ENERGY ACTION NETWORK

VT's historical GHG emissions, estimates, and future requirements



Source: 1990–2022 emissions: Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2022," 2025. EAN calculated emissions estimates for 2023 and 2024 in the transportation and thermal sectors use sales data from the Vermont Department of Taxes, the Vermont Joint Fiscal Office, Vermont Gas Services, and GHG emissions factors from the EPA. EAN calculated electric emissions estimates for 2023 and 2024 use electricity delivery data from the Vermont Department of Public Service and GHG emissions factors from NEPOOL GIS (as described in the Vermont Agency of Natural Resources' (ANR) Greenhouse Gas Emissions Inventory methodologies document) plus a carry-forward estimate of emissions from wood-fired electricity generation from the 2022 ANR Greenhouse Gas Emissions Inventory and Forecast.

Note: A small amount of emissions from the "fossil fuel industry" category (i.e., fugitive emissions from fossil gas pipelines in VT), accounting for 0.4% of Vermont's overall emissions in 2022, is not visible on this graph.

ENERGY ACTION NETWORK

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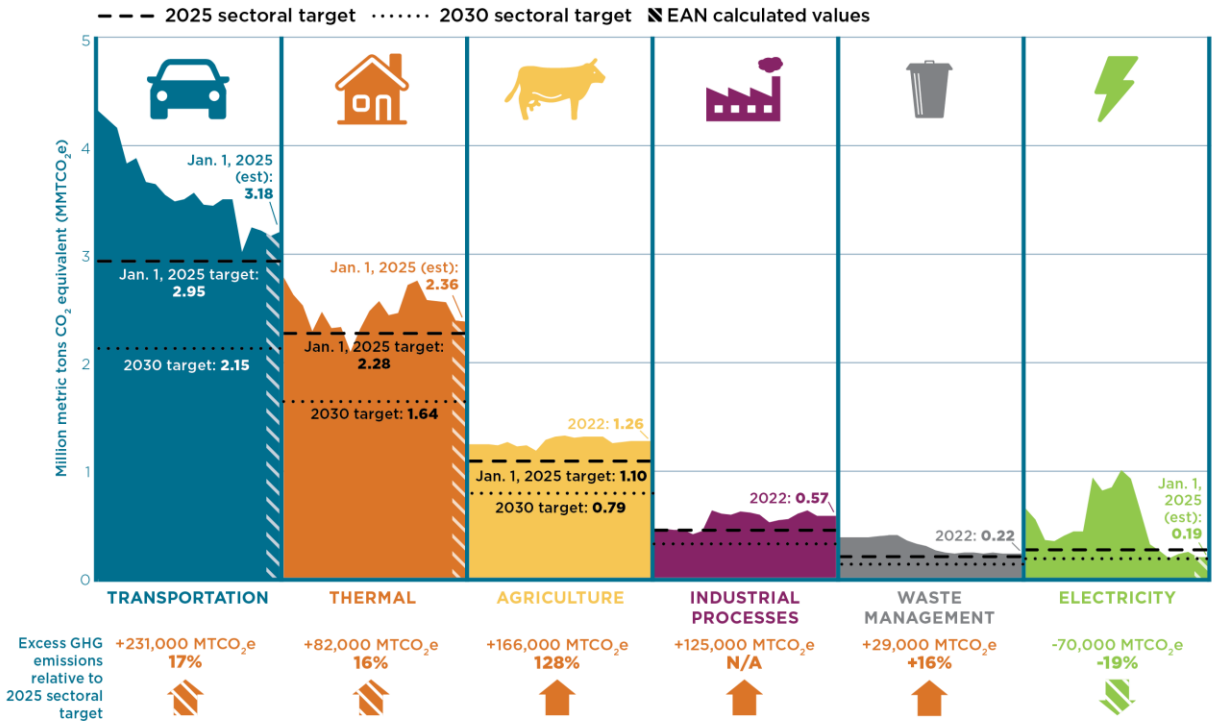
Vermont GHG emissions by sector since 2005

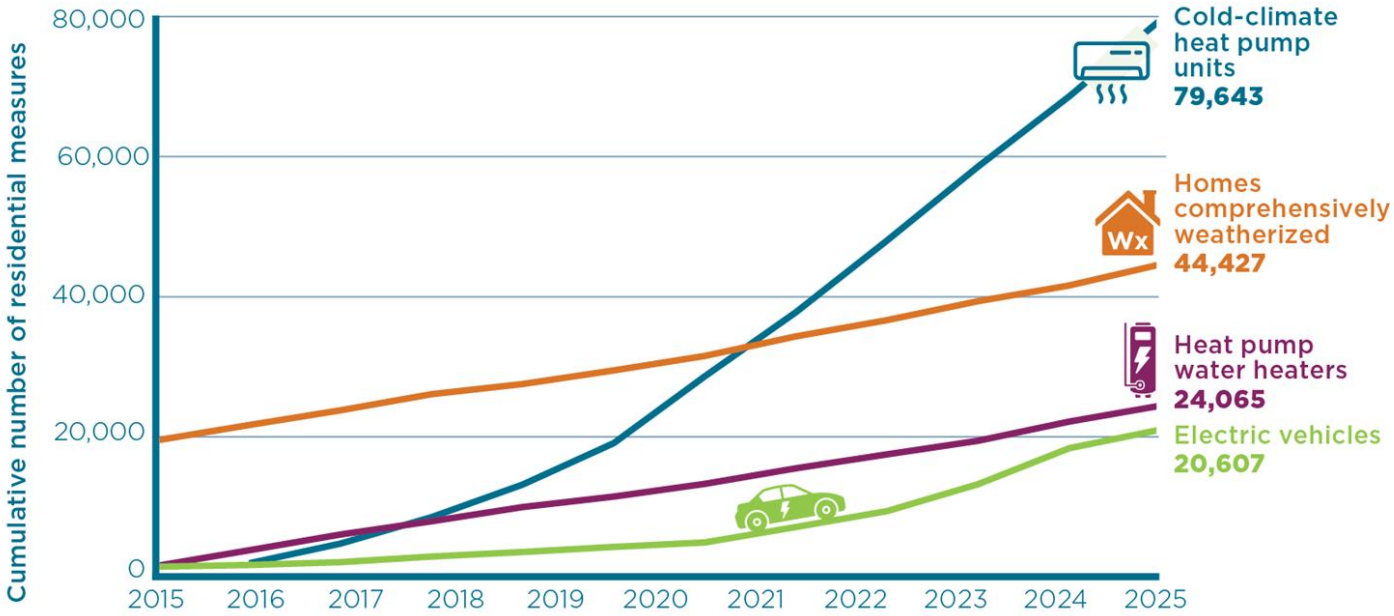


Source: 2005-2022 emissions: Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2022," 2025. EAN calculated emissions estimates for 2023 and 2024 in the transportation and thermal sectors using sales data from the Vermont Department of Taxes, the Vermont Joint Fiscal Office, Vermont Gas Services, and GHG emissions factors from the EPA. EAN calculated electric emissions estimates for 2023 and 2024 using electricity delivery data from the Vermont Department of Public Service and GHG emissions factors from NEPOOL GIS (as described in the Vermont Agency of Natural Resources' (ANR) Greenhouse Gas Emissions Inventory methodologies document) plus a carry-forward estimate of emissions from wood-fired electricity generation from the 2022 ANR Greenhouse Gas Emissions Inventory and Forecast.

Notes: The VT Climate Council set sectoral emissions targets for GWSA compliance based on each sector's share of emissions in 2018. EAN calculated estimates of GHG emissions in the transportation, thermal, and electric sectors for 2023 and 2024. The agriculture, industrial processes, and waste management sector emissions data is only available through 2022. A small amount of emissions from the "fossil fuel industry" category (i.e., fugitive emissions from fossil gas pipelines in VT), accounting for 0.4% of Vermont's overall emissions in 2022, is not visible on this graph. Sectoral values may not sum to statewide values due to independent rounding. The 2025 sectoral target for industrial process emissions was that they remain at 2005 levels, so a percentage of targeted reduction in this sector cannot be calculated.

ENERGY ACTION NETWORK

Recent adoption trendlines for key clean energy solutions in Vermont



Sources: Cold-climate heat pumps and heat pump water heaters: Efficiency Vermont, Burlington Electric Department, and VGS; Electric vehicles: Vermont Department of Motor Vehicles via Drive Electric Vermont; Weatherization: Efficiency Vermont, Burlington Electric Department, VGS, 3E Thermal, and Vermont OEO.

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Notes: Adoption measured by incentives provided in Vermont. Weatherization data include residential measures only. The heat pump totals represent the number of outdoor units installed, not the number of individual indoor heads. Individual homes may have multiple outdoor units.

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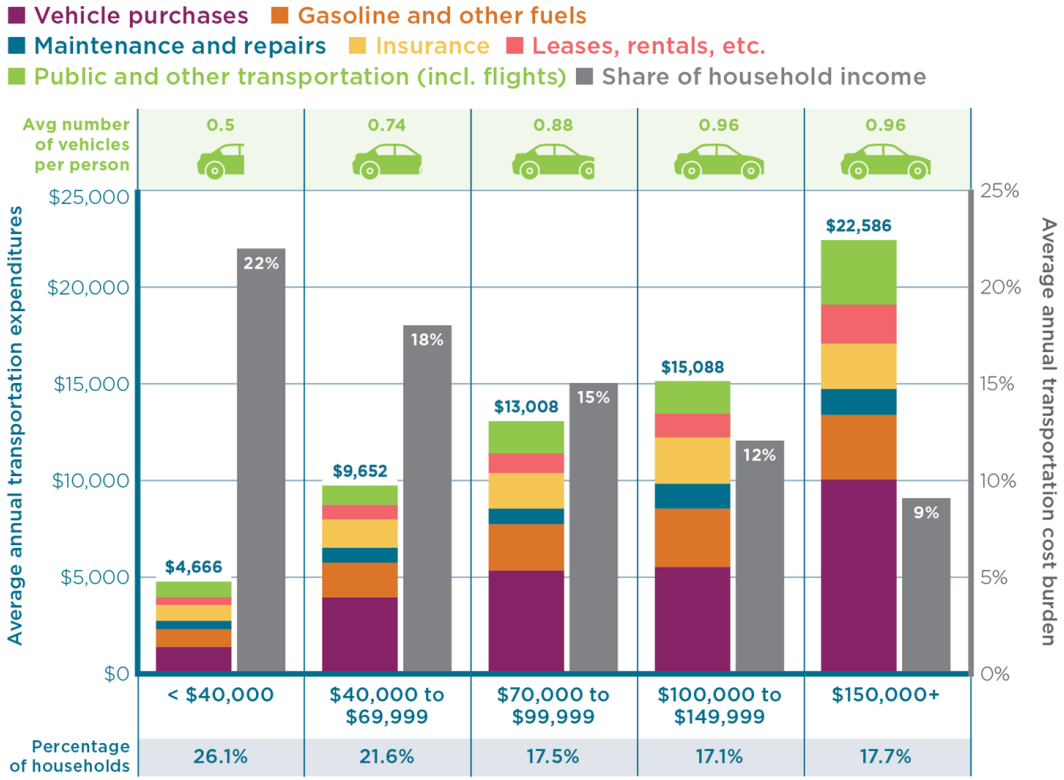
Transportation expenditures and burden by household income, Northeast, 2023-2024



Source: U.S. Bureau of Labor Statistics, Consumer Expenditure Surveys, average expenditures for the Northeastern U.S., 2023-2024.
Note: Transportation cost burden is the share of household income spent on transportation-related costs.

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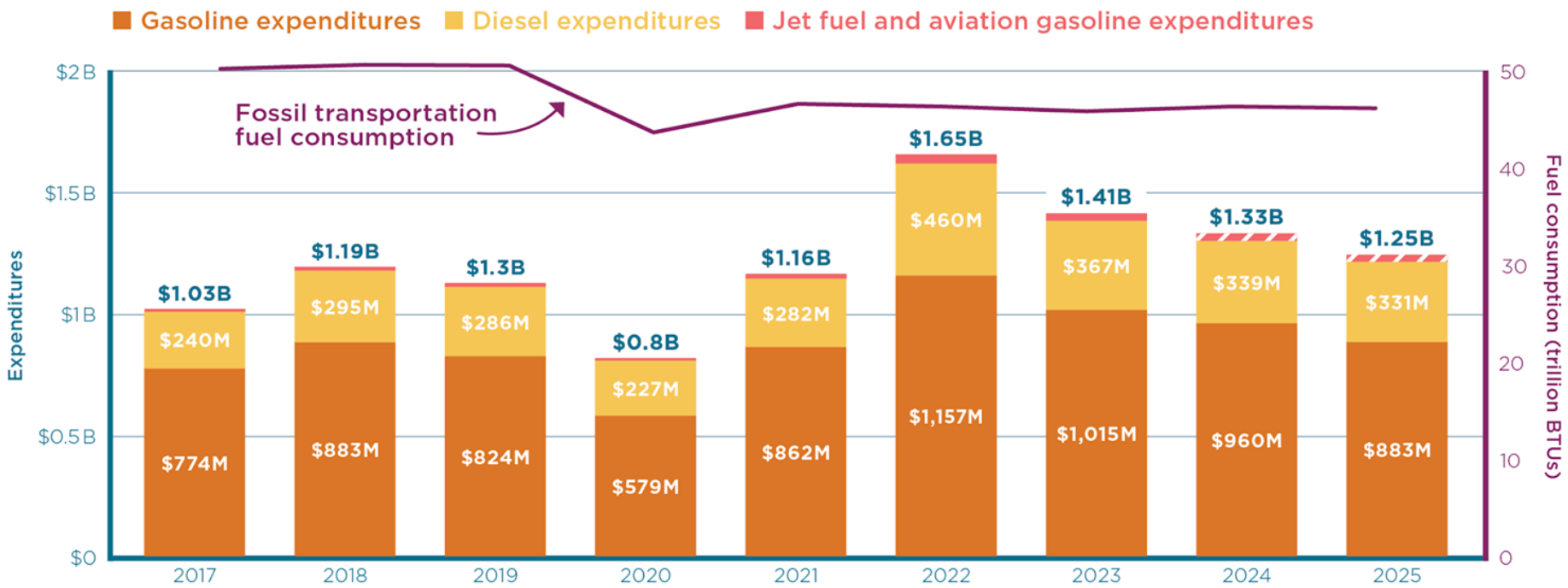
Vermont statewide transportation fossil fuel expenditures and consumption, 2017–2025



Sources: Gasoline and diesel sales volumes from Vermont Department of Taxes via the Joint Fiscal Office; annual expenditures estimated based on monthly average fuel prices for New England from EIA. Gasoline prices represent a combined value of regular reformulated gasoline and premium reformulated gasoline, weighted by EIA's most recent consumption estimates as a share of total statewide gasoline consumption. Jet fuel and aviation gasoline: EIA State Energy Data System, 2026.

Notes: Data for jet fuel and aviation gasoline for 2024 and 2025 was not available at the time of publication. 2024 and 2025 values for jet fuel and aviation gasoline are carried forward from 2023. Prices shown are nominal and not adjusted for inflation.

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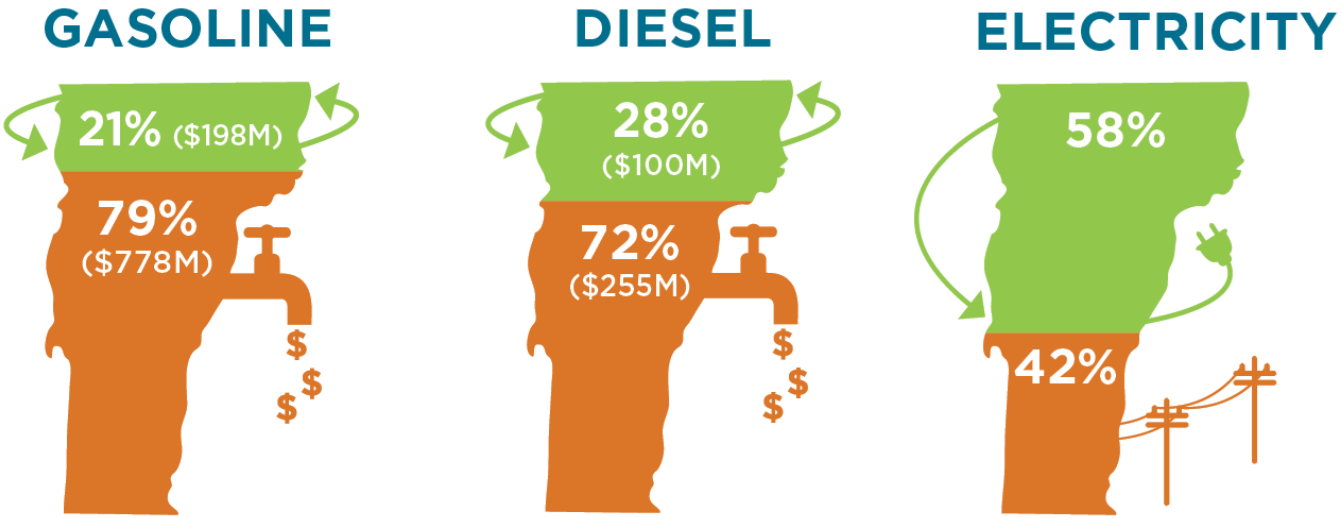
In- and out-of-state dollar flows by transportation fuel, 2021–2025

■ Recirculates in the VT economy ■ Leaves the VT economy



Sources: Dollar recirculation share: EAN, "Dollar Flow Analysis of Energy Expenditures in Vermont," 2026. Fossil fuel spending: VT Department of Taxes, 2026; EIA, 2026; Electricity spending: VT Department of Public Service and VT electric utilities, 2026.

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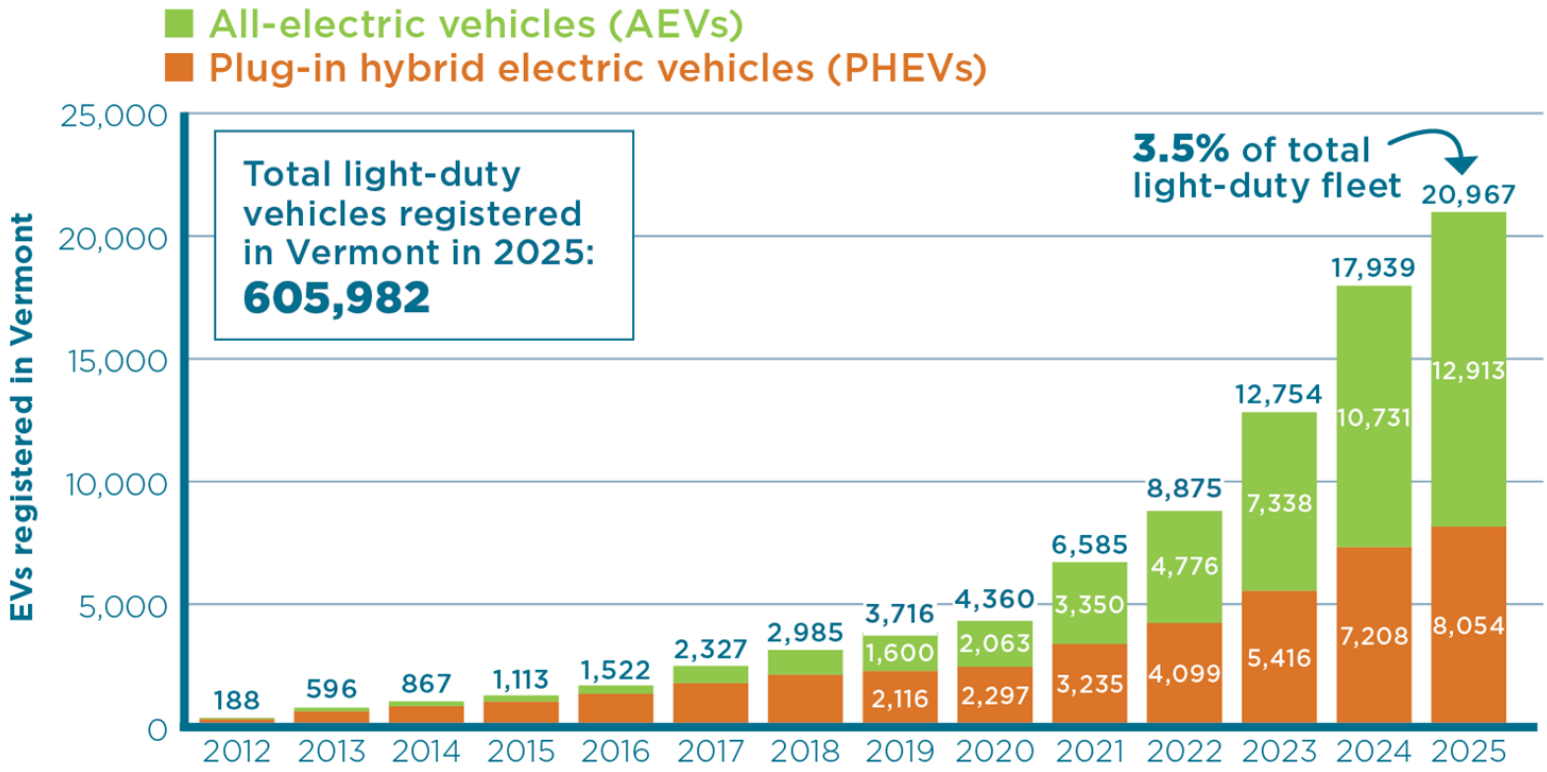
Vermont EV registrations



Sources: Drive Electric Vermont, 2026; Atlas Public Policy, EValuateVT Dashboard, 2026.

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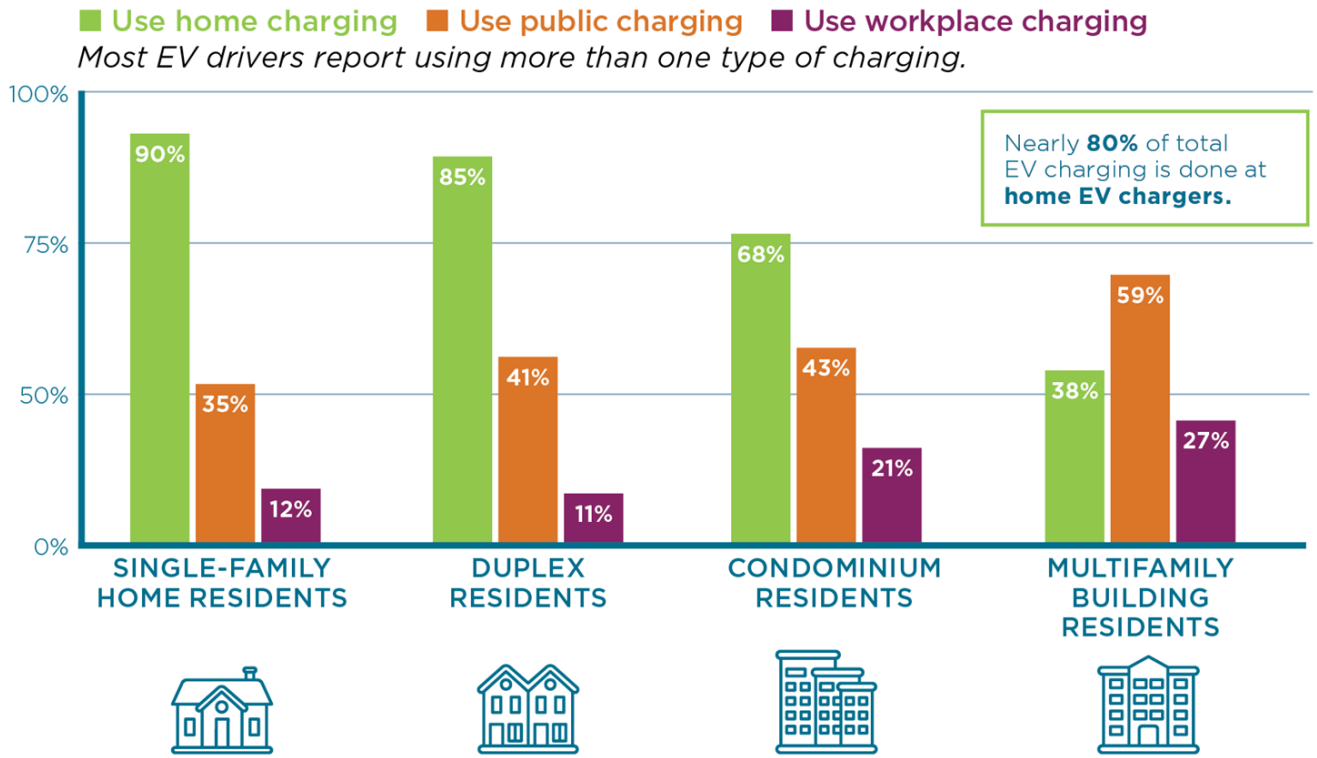
Where Vermonters live impacts how they charge their EVs



Source: VT Department of Public Service, "Vermont State and Distribution Utility Electric Vehicle Programs Evaluation," 2024. Total home charging percentage: VT Department of Public Service, "2026 Annual Energy Report."

Note: Bars add up to percentages greater than 100% because survey respondents could choose more than one option.

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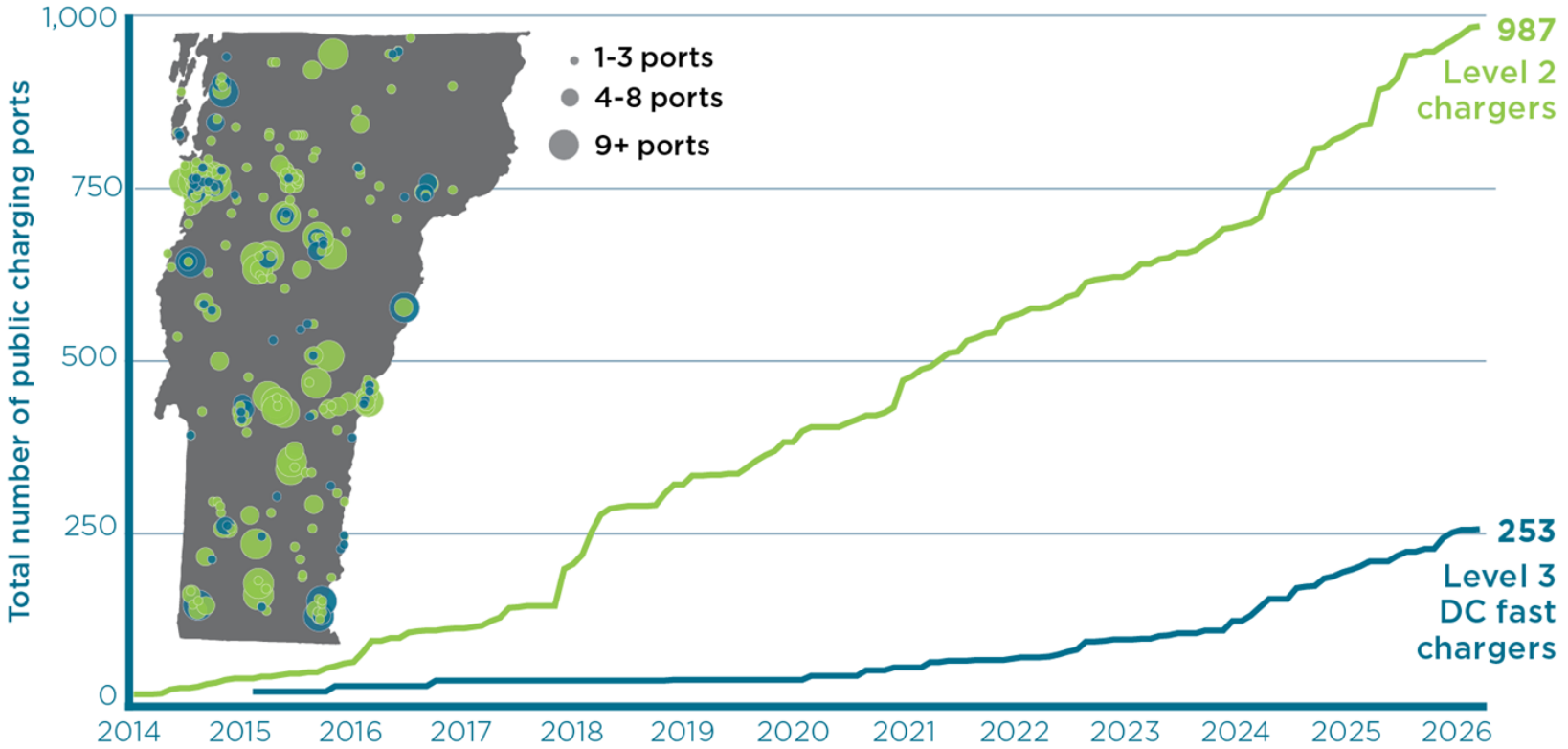
Public charging ports for electric vehicles in VT



Source: Atlas Public Policy, EValuateVT, 2026.

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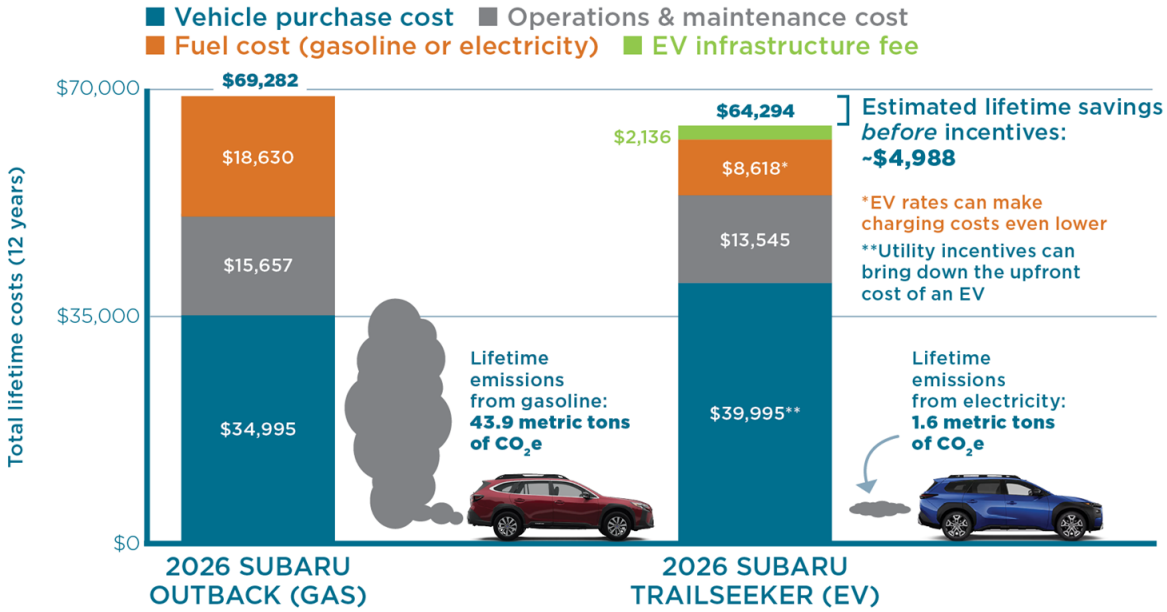
Lifetime costs and GHG emissions of comparable gas vs. electric vehicles in Vermont



Sources: Vehicle costs represent the base MSRP for 2026 models. Gasoline emissions factor from EIA; electricity emissions factor (0.09 lbs CO_2e/kWh) calculated based on VT Agency of Natural Resources "Vermont Greenhouse Gas Emissions Inventory and Forecast" (2025). Fuel costs calculated based on 2026 year-to-date (as of June 3) average gasoline prices for New England ($3.59/gal) and average VT electricity prices ($0.22/kWh) from VT utility regulatory filings. Operations and maintenance costs: AAA "Your Driving Costs" study, 2025. Operating costs and fuel costs are calculated based on 2024 VT average annual mileage of 11,209 miles from the Federal Highway Administration. EV infrastructure fee ($178/year): Act 168 of 2026.

Notes: Charging costs for EVs can be even lower than presented with the use of EV charging rates offered by some VT utilities. Vehicle efficiency rates are from manufacturer reporting; however, actual efficiency rates are often lower in colder temperatures. Average vehicle lifetime used is 12 years. For vehicle lifetimes beyond 12 years, average total EV savings relative to gas vehicles would be higher than presented here, with additional accumulated annual fuel and maintenance savings. Vehicle purchase costs for EVs can be lower after incentives. For the latest information about EV incentives, visit driveelectricvt.com.

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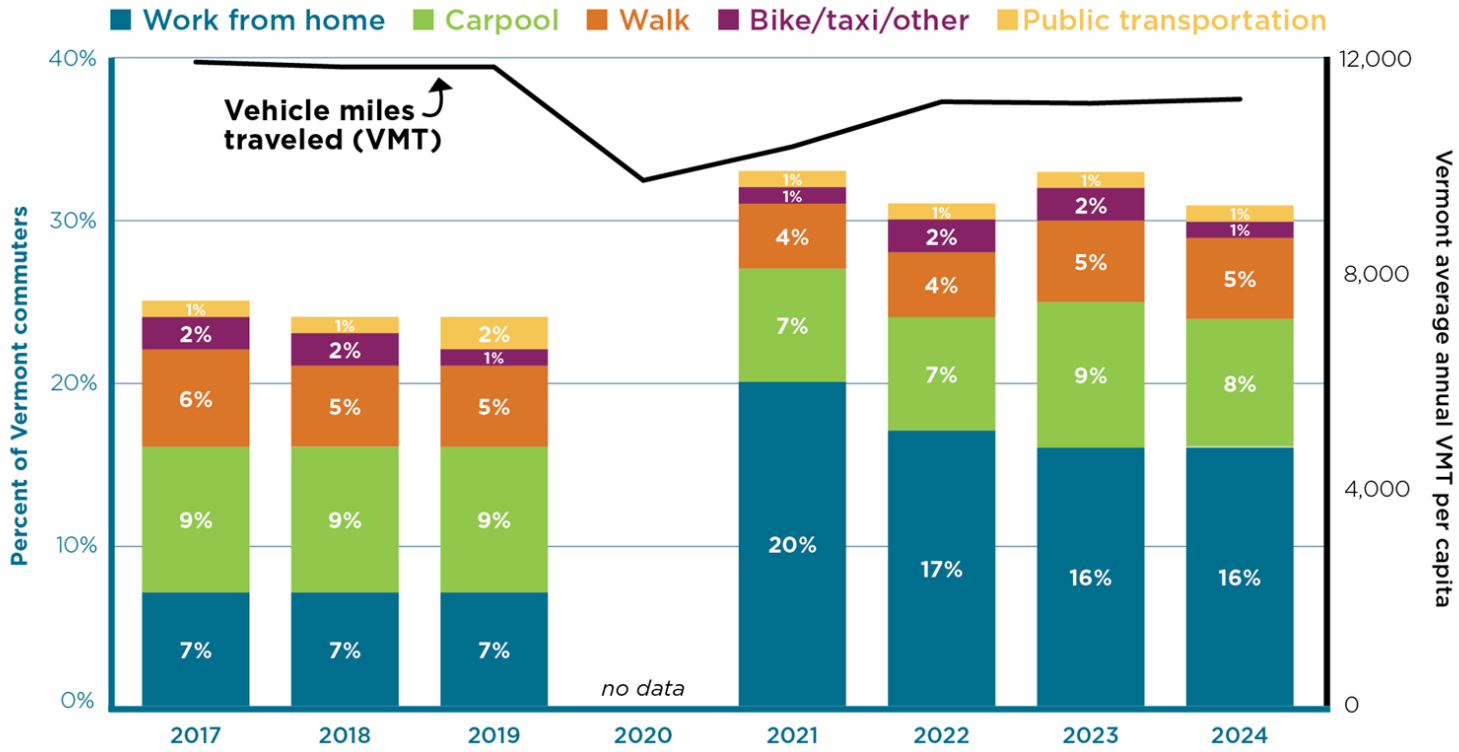
Vermont commute modes (besides single occupancy vehicles) and vehicle miles traveled



Source: Commute modes: U.S. Census Bureau, American Community Survey 1-year estimates, 2017-2024; VMT: Federal Highway Administration, Highway Statistics 2024, Table PS-1.
Notes: 2020 data not available due to the pandemic. Remaining commute mode share is by single-occupancy vehicles.

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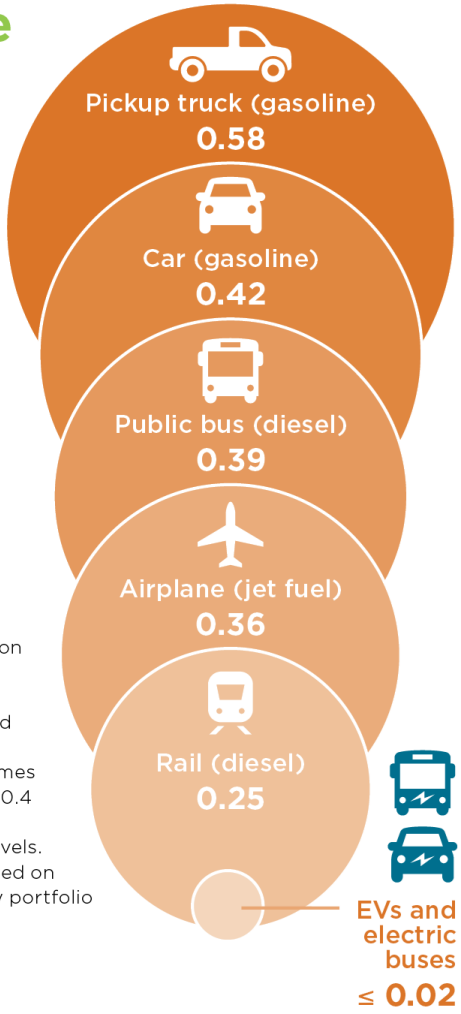
Pounds of CO_2e per passenger-mile by vehicle type (fuel emissions only)



Walk/bike **0**



Sources: U.S. Department of Energy, "Transportation Energy Data Book: Edition 40," 2022; Congressional Budget Office, 2022. Fuel emissions factors from EIA. Estimates for pickup trucks, gas cars, and EVs calculated using VT average vehicle occupancy of 1.58. Estimate for rail assumes 23.2 passengers, for airplane assumes 120.4 passengers. **Notes:** Emissions can vary significantly depending on occupancy levels. Electric vehicle emissions calculated based on the emissions intensity of VT's electricity portfolio in 2022.

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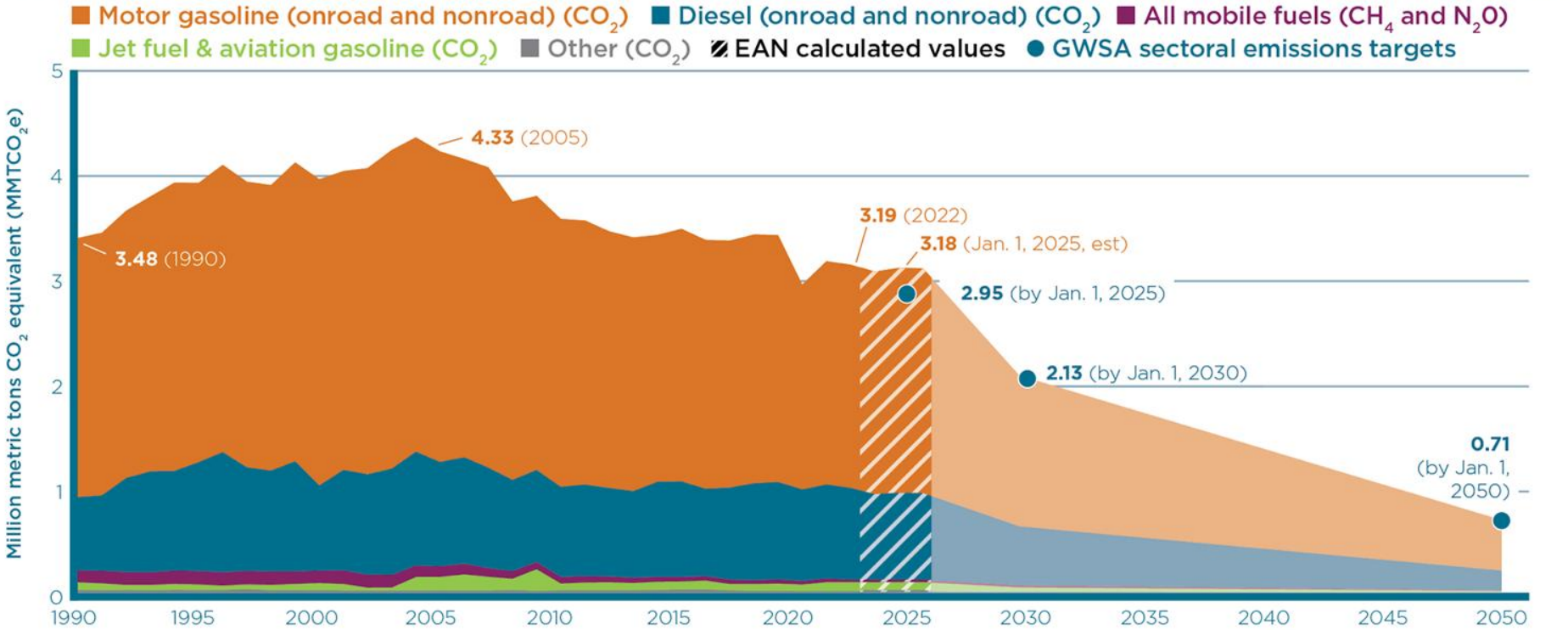
Historical VT transportation GHG emissions and future sector targets



Source: 2005-2022 emissions: Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2022," 2025. 2023-2025 emissions: EAN.

Notes: EAN calculated emissions estimates for 2023-2025 in the transportation sector using sales data from the Vermont Department of Taxes, the Vermont Joint Fiscal Office, and GHG emissions factors from the EPA. The VT Climate Council set sectoral emissions targets for GWSA compliance, which are represented by the blue dots on the graph.

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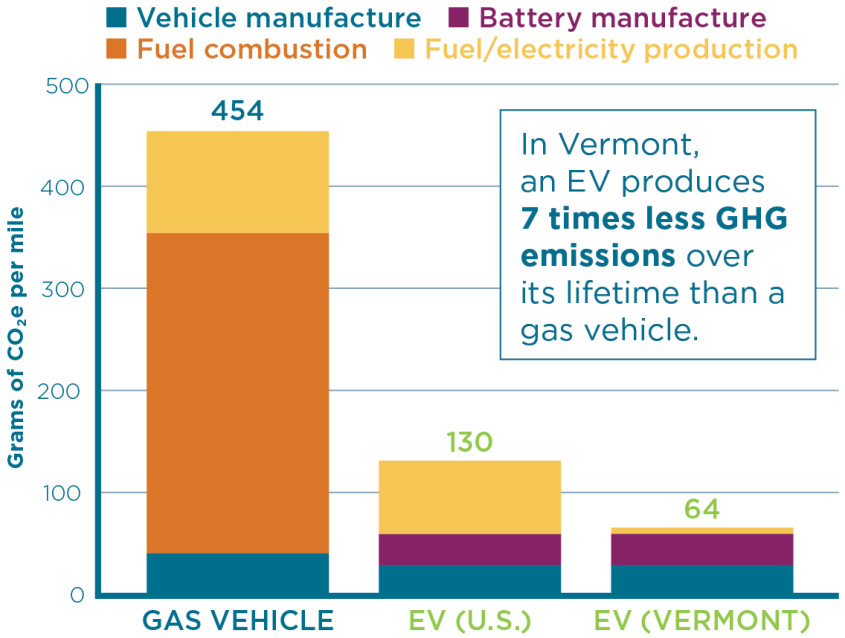
Lifecycle GHG emissions of gas vs. electric vehicles



Sources: ICCT, "Life-cycle greenhouse gas emissions of U.S. sedans and SUVs with different powertrains and fuel sources," 2024. Vermont electricity emissions based on 2020 life cycle emissions from Vermont Agency of Natural Resources/ERG, "Vermont Energy Sector Life Cycle Assessment," 2024. **Notes:** Values represent emissions over the lifetime of a vehicle purchased in 2024. Emissions from EVs are presented separately for the U.S. and Vermont because Vermont's electricity portfolio is much lower-emitting than the national average.

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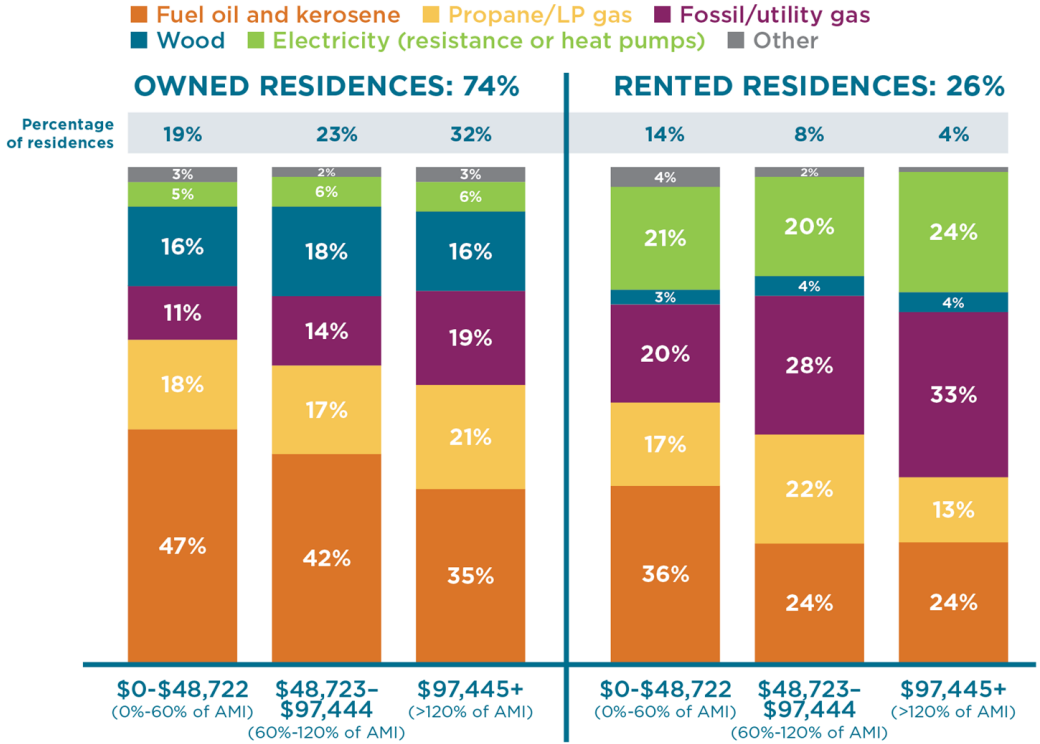
Vermont primary household fuel use by income and housing type, 2020–2024



Source: U.S. Census Bureau, 2020-2024 American Community Survey 5-year Public Use Microdata Samples.

ENERGY ACTION NETWORK

Notes: Income categories are based on 2020-2024 area median income (AMI) for Vermont of $81,203. Data is self-reported. Percentages may not sum to 100% due to independent rounding. Kerosene makes up only 3%–4% of total "fuel oil and kerosene" gallons sold. ACS data does not disaggregate between electricity used for resistance heating vs. heat pump heating. However, EAN analysis of historical ACS data suggest that resistance electric is likely the primary heating source of about 5% of VT households, with heat pumps about 7%. It is assumed that the majority of heat coming from electricity in rented residences is electric resistance.

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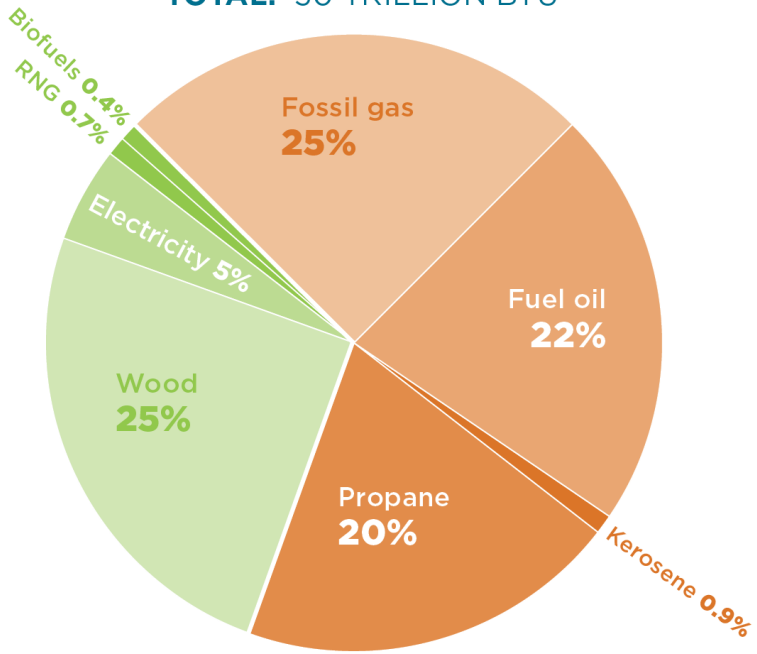
Vermont heating and cooling energy sources, 2024

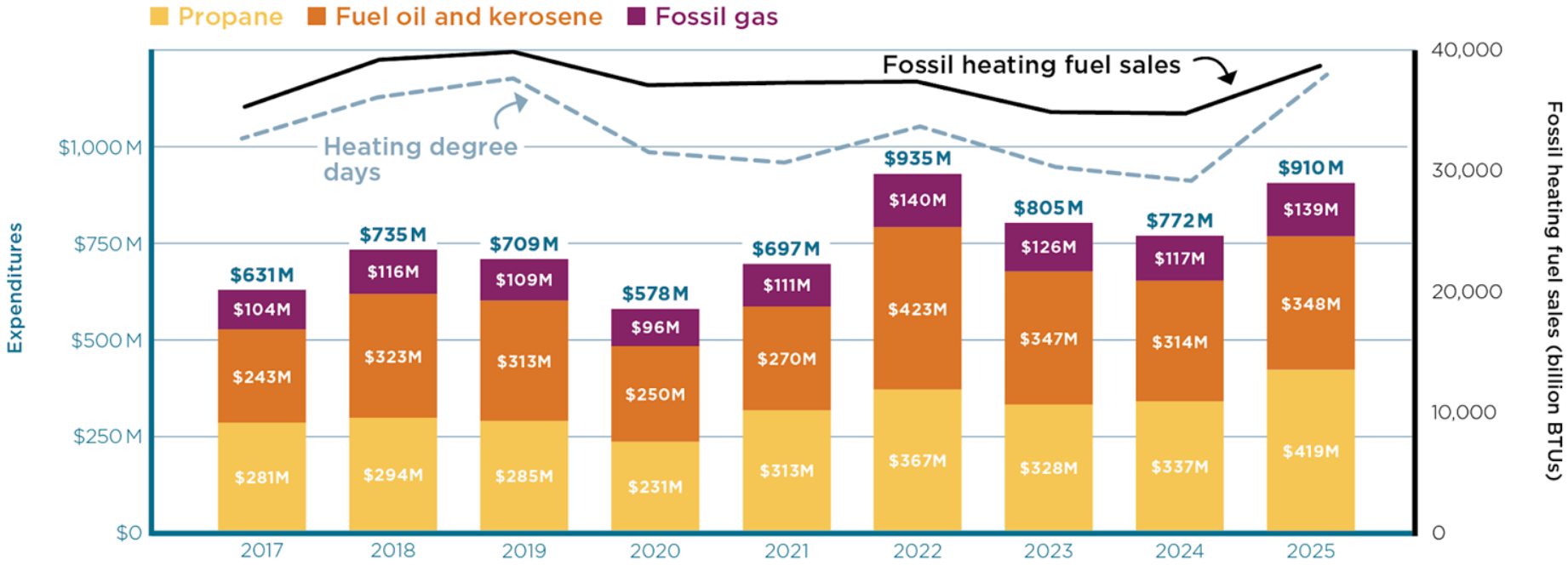
TOTAL: 50 TRILLION BTU



ENERGY ACTION NETWORK

Sources: VT Department of Taxes, 2026; EIA State Energy Data System, 2026; VGS: 2026; VEIC, 2022.
Notes: Percentages may not add up to 100% due to independent rounding. Electricity used for thermal purposes is estimated based on the number of heat pumps and heat pump water heaters installed in Vermont, as well as the number of homes estimated to have air conditioning and electric resistance heat or hot water.

Vermont annual fossil heating fuel expenditures and consumption, 2017-2025

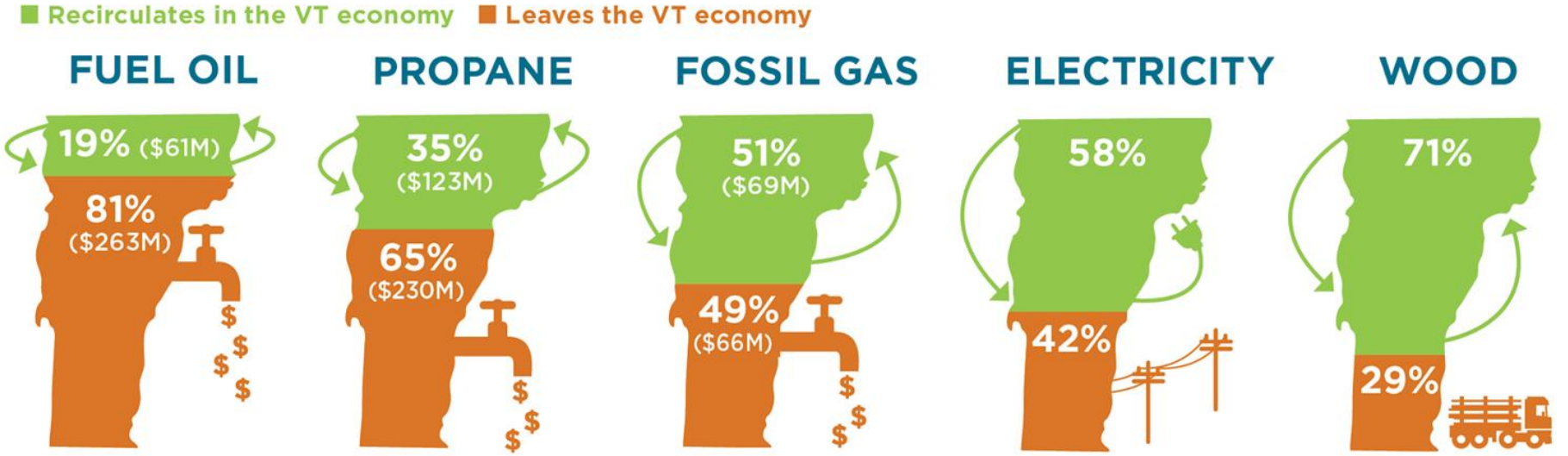


Sources: Fuel sales volumes from the Vermont Department of Taxes, VGS, and EIA; annual expenditures estimated based on monthly average fuel prices for Vermont from the Vermont Department of Public Service, VGS, and EIA; Vermont population-weighted heating degree days from NOAA Climate Prediction Center.

Notes: Heating degree days are a measure that compares the mean outdoor temperature on a given day to a standard temperature of 65 degrees Fahrenheit meant to quantify heating needs. The range in this time period went from a low of 6,985 (2024) to a high of 7,898 (2025). A higher number of heating degree days indicates a colder year. Total fossil heating fuel expenditures includes "residual fuel oil," however, the amount is too small to be visible on the graph. Kerosene makes up only 3%–4% of total "fuel oil and kerosene" gallons sold. Prices shown are nominal and not adjusted for inflation.

ENERGY ACTION NETWORK

In- and out-of-state dollar flows by heating fuel, 2021–2025



Sources: Fossil fuel spending: VT Department of Taxes, 2026; VGS, 2026; EIA, 2026; Electricity spending: VT Department of Public Service and VT electric utilities, 2026; Wood spending: VEIC, "Wood Heat Use in Vermont," 2024; Dollar recirculation share: EAN, "Dollar Flow Analysis of Energy Expenditures in Vermont," 2026.
Note: Total dollars spent on electricity and wood for thermal purposes not available.

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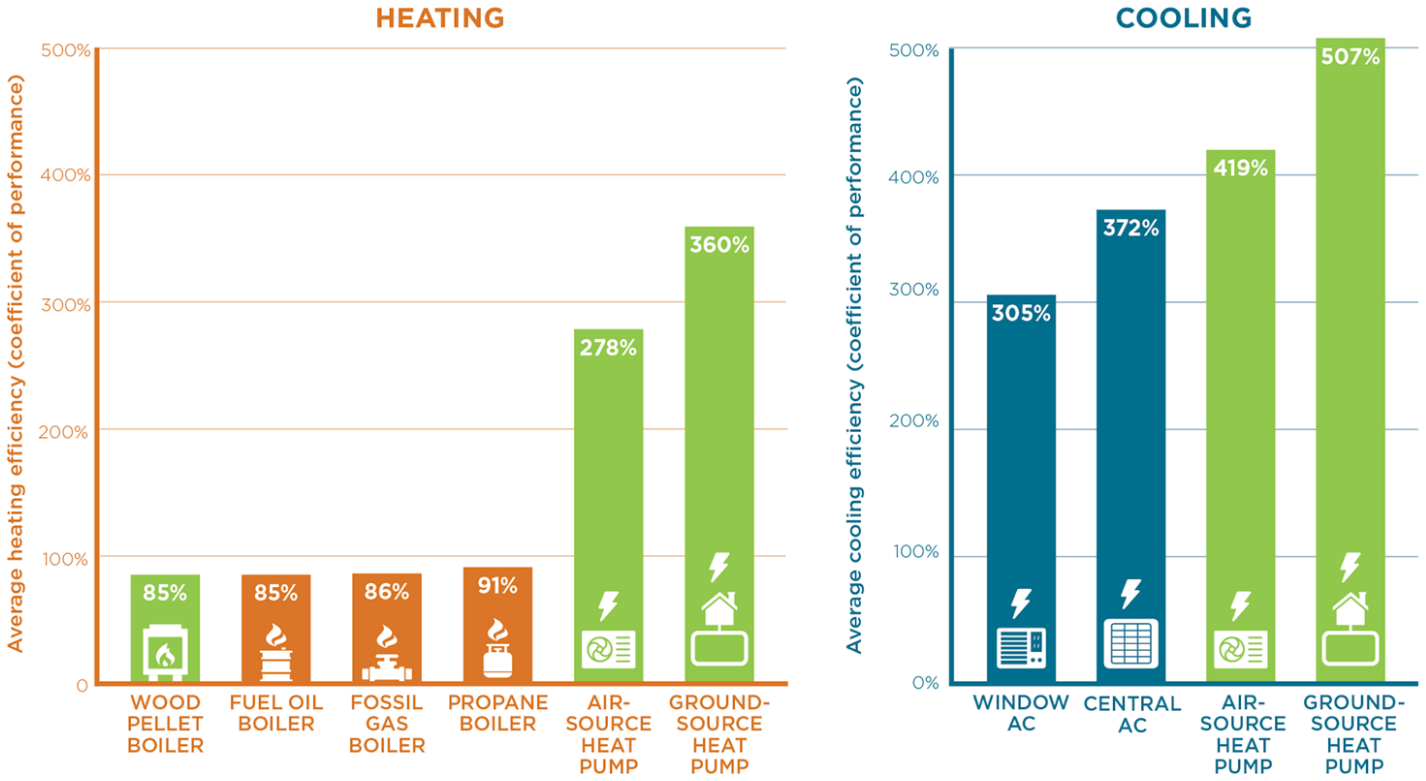
Average efficiency: New residential heating and cooling systems



Sources: Pellet boilers, air-source heat pumps, fuel oil and propane boiler, central air conditioner, and window air conditioner efficiencies: Efficiency Vermont "Technical Reference Manual (TRM), Program Year 2024." Fossil gas boiler efficiency: Vermont Department of Public Service, "2020 Vermont Single-Family Existing Homes Baseline Study," 2023. Ground-source heat pumps: U.S. EIA, "Updated Buildings Sector Appliance and Equipment Costs and Efficiencies," 2023.

Notes: Air-source heat pumps refer to air-to-air heat pump systems. Heating and cooling efficiencies refer to the average rate at which an appliance converts energy from fuel to thermal output, measured in BTUs and expressed as a percentage. Heat pumps are capable of achieving heating efficiency rates greater than 100% because the energy input is used to transfer (rather than generate) heat. Efficiency rates for air-source heat pumps vary depending on outdoor air temperature — the efficiencies presented here are averages.

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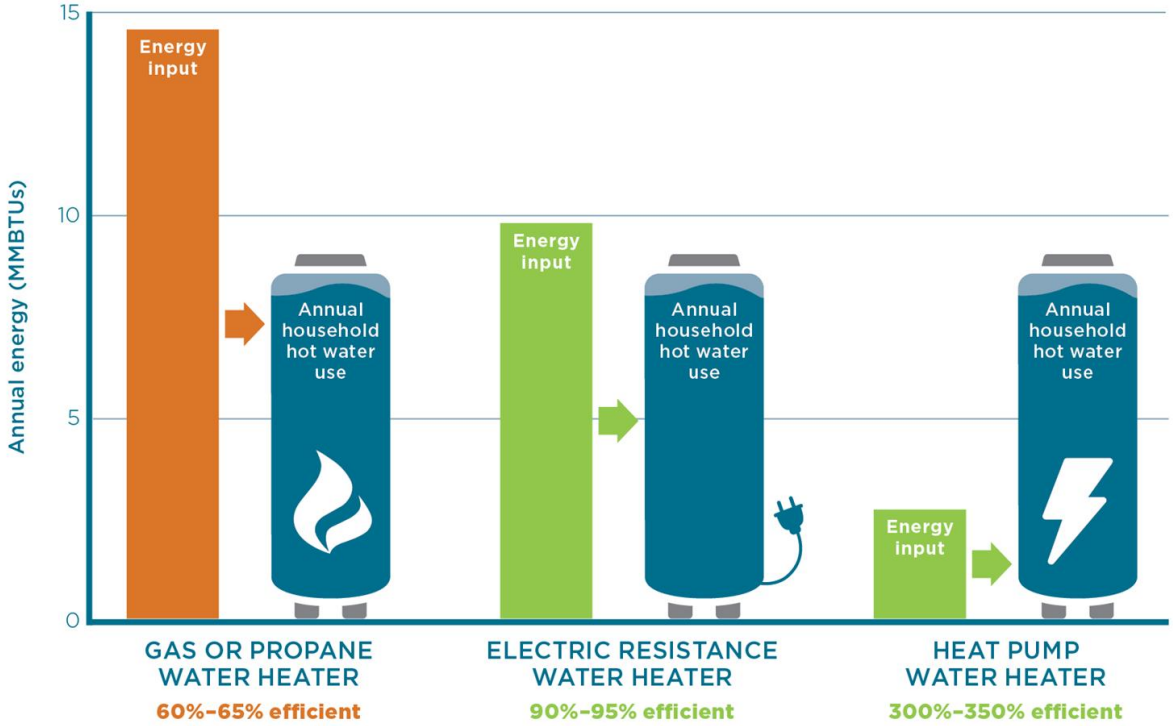
Energy needed for annual household water heating: Fossil fuel vs. electric



Sources: Efficiency Vermont, "Technical Reference Manual (TRM), Program Year 2024," EIA, Updated Buildings Sector Appliances and Equipment Costs and Efficiencies, 2023.

Notes: Average annual household water heating load assumed to be 9.04 MMBtus. Efficiency rates are for storage/tank water heaters.

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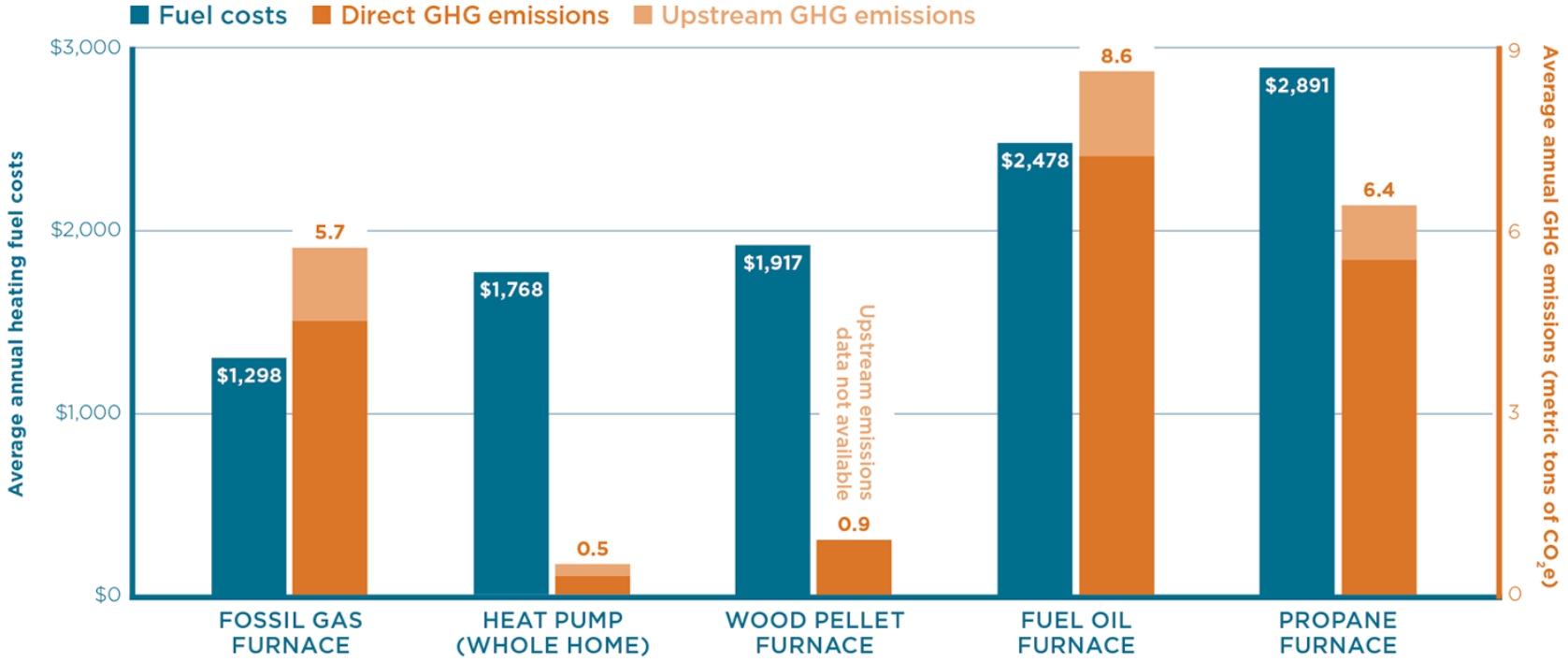
Average annual Vermont household heating fuel costs and GHG emissions, forced hot air systems, 2020–2025



Sources: Average monthly fuel prices: EIA; Vermont Department of Public Service, Retail Prices of Heating Fuels; VGS. Average efficiency rates of heating equipment: Efficiency Vermont, "Technical Reference Manual (TRM), Program Year 2024." Direct/site emissions factors: VT Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast, 1990-2022," 2025. Upstream emissions factors: ERG, prepared for VT ANR, "Vermont Energy Sector Life Cycle Assessment," 2024. Annual fuel costs assume average household heating load of 83 MMBtu, adjusted to account for annual population-weighted heating degree days from NOAA Climate Prediction Center.

Notes: Prices are nominal and not adjusted for inflation. Consistent with the Agency of Natural Resources greenhouse gas inventory, biogenic CO_2e emissions are not included in the direct/site emissions for wood.

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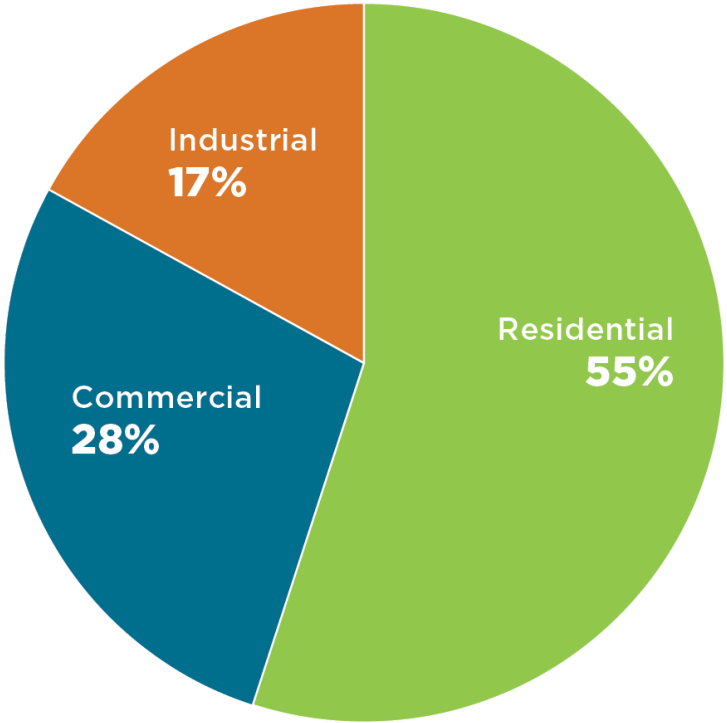
Vermont thermal energy use by sub-sector, 2023



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Source: VT Department of Public Service, "2026 Annual Energy Report," 2026.

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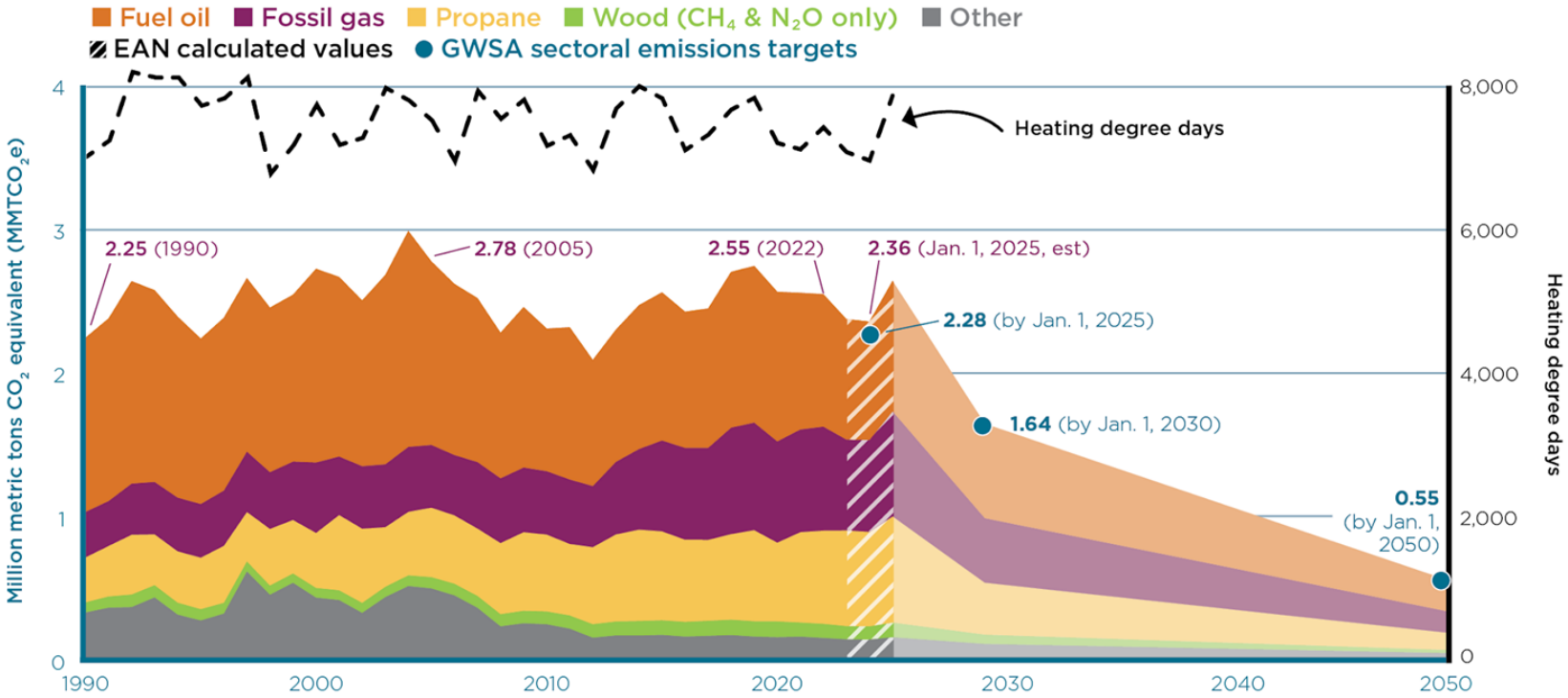
Historical VT thermal GHG emissions and future sector targets



Sources: 2005-2022 emissions: Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2022," 2025. 2023-2025 emissions: EAN. Heating degree days: NOAA Climate Prediction Center, 2025.

Notes: EAN calculated emissions estimates for 2023–2025 in the thermal sector using sales data from the Vermont Department of Taxes, the Vermont Joint Fiscal Office, Vermont Gas Services, and GHG emissions factors from the EPA. "Thermal sector" refers to the Residential/Commercial/Industrial (RCI) Fuel Use sector in the ANR GHG Inventory. "Other" includes kerosene, coal, and less common commercial and industrial fuels. Heating degree days are a measure of how cold the temperature was on a given day, and compares the mean outdoor temperature to a standard temperature of 65F. It is measured by subtracting the mean temperature from the standard temperature and aggregated over the entire year. The VT Climate Council set sectoral emissions targets for GWSA compliance, which are represented by the blue dots on the graph.

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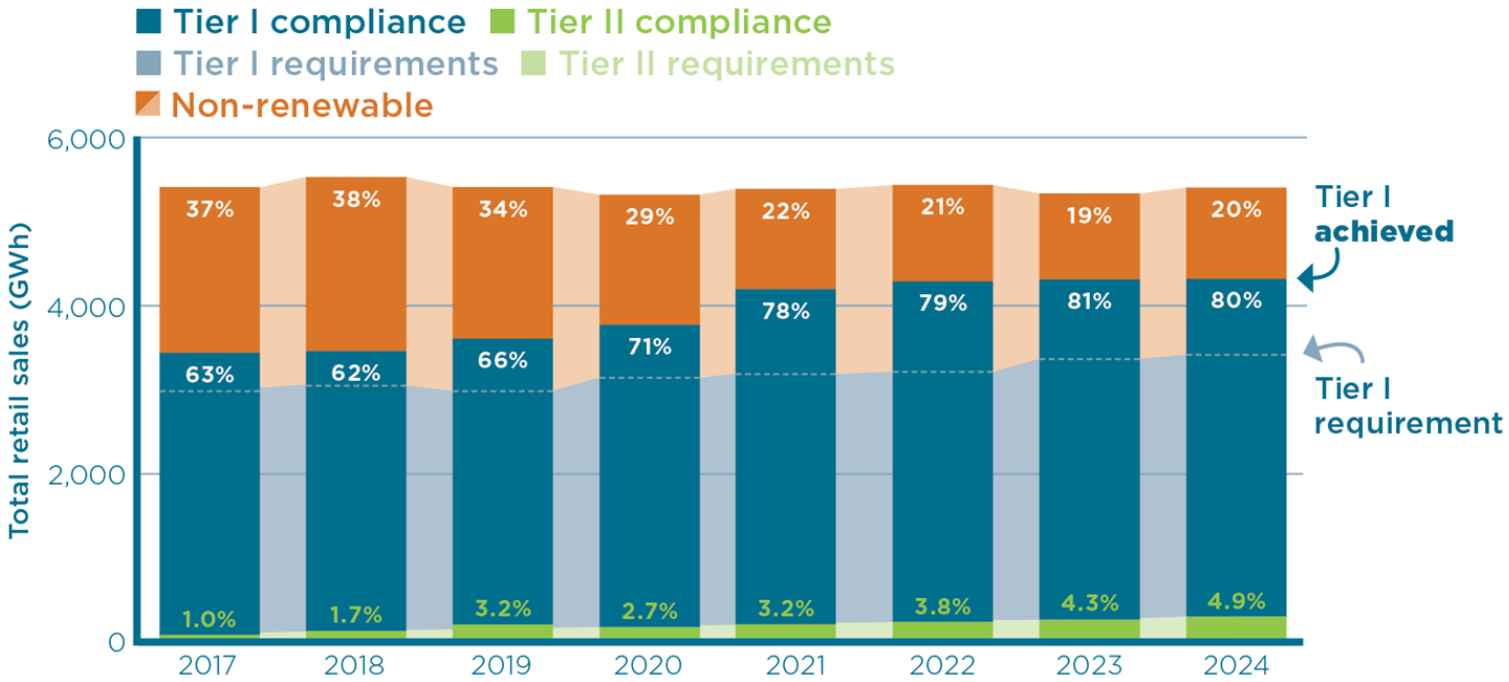
Vermont Renewable Energy Standard requirements and compliance, 2017–2024



Sources: Vermont Department of Public Service, 2026. RES requirements from 30 V.S.A. § 8005 (a) (1) (C).

Notes: Distributed renewable generation that qualifies for Tier II also qualifies for and is included in Tier I. The percentages shown on the blue bars represent total Tier I generation, including Tier II (shown in green). For purposes of RES compliance, non-renewable electricity includes nuclear.

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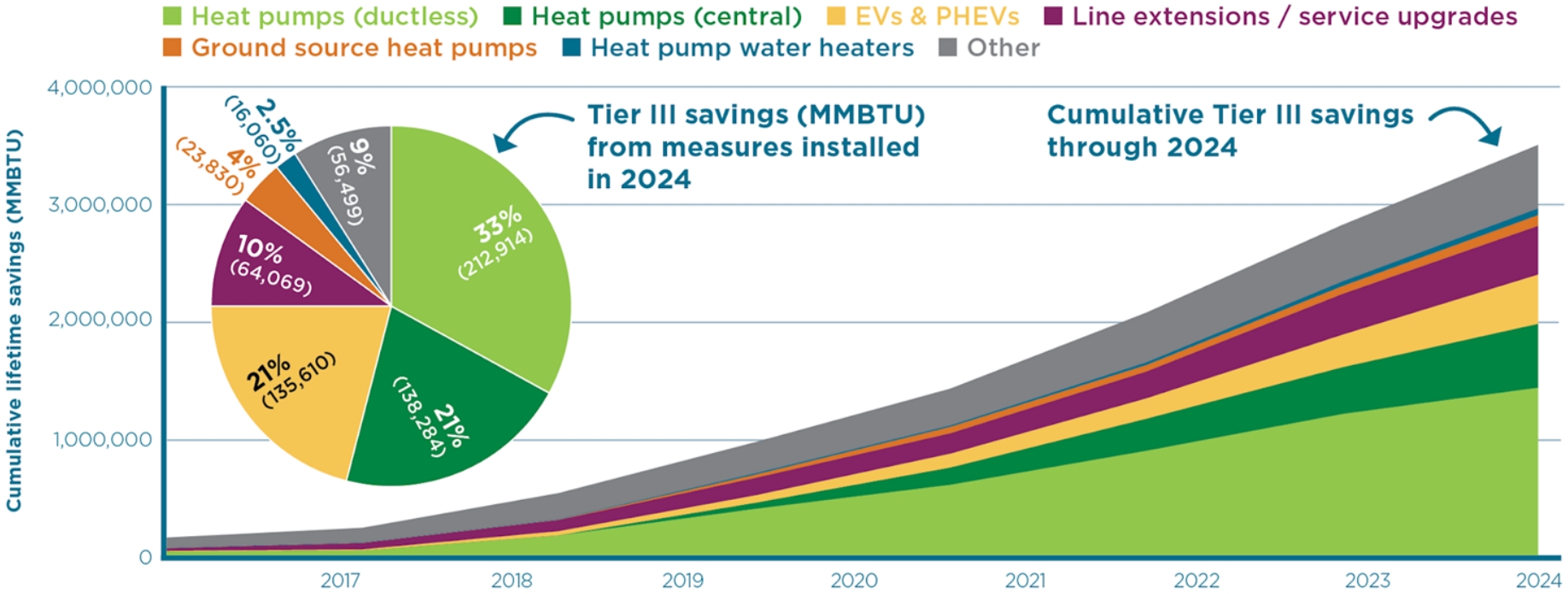
Renewable Energy Standard Tier III lifetime savings



Source: VT Department of Public Service, 2026. **Notes:** "Other" includes the following measures, listed in order from greatest to least savings in 2024: battery storage, custom projects, EV charging equipment, prescriptive projects, advanced wood heat, and weatherization. The Vermont Public Service Department accounts for Tier III savings in a given year by calculating the lifetime savings from all measures installed during that calendar year. Percentages may not add to 100% due to independent rounding.

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ISO-New England electricity peak load costs and emissions, summer 2025

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ISO-NE load (MW)	Average price ($/MWh)	Emissions ($MTCO_2e$/ minute)	# of days peaking in this range
12,000–14,999	$50	69	21
15,000–17,999	$74	85	33
18,000–20,999	$100	93	19
21,000–23,999	$153	111	15
24,000+	$458	135	6

Source: ISO New England, "Daily Summary of Hourly Data (2025)," 2026. Green Energy Consumers Alliance, "Shave the Peak End-of-Summer Trends," 2025.

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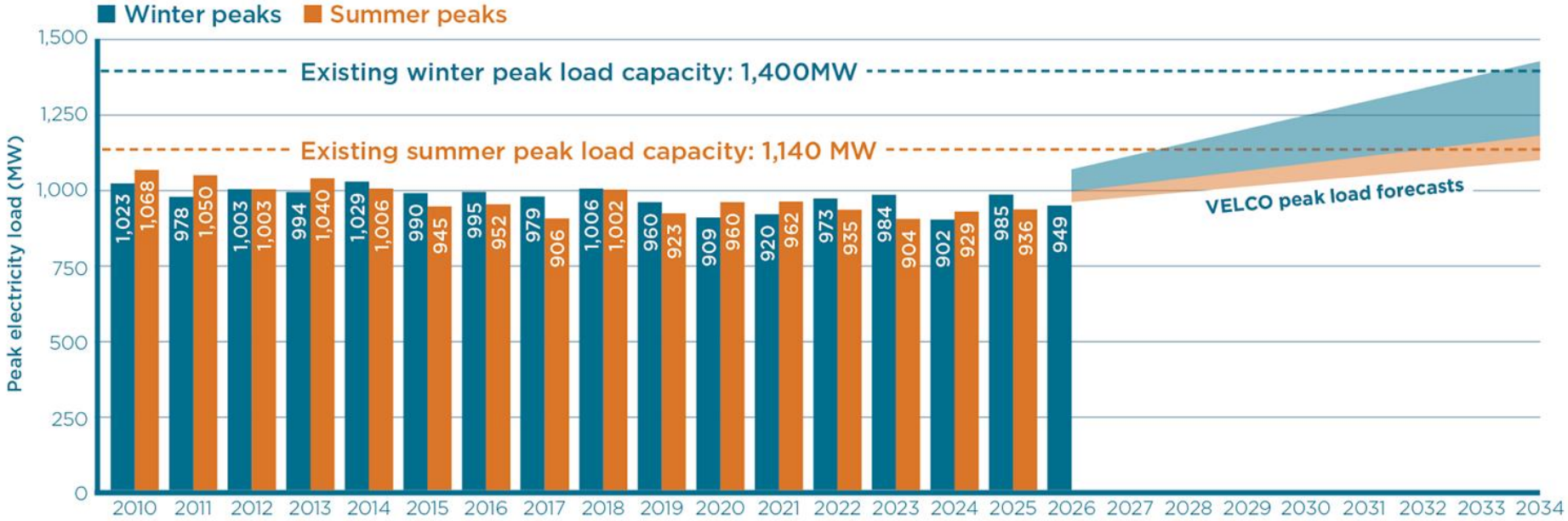
Vermont historical and forecasted peak loads



Sources: Existing peak load capacities, historical peak loads, and peak load forecasts: VELCO, 2026; historical peak loads: VELCO, "Vermont Long-Range Transmission Plan," 2024.

Notes: The peak load forecasts represent a low and a high scenario. The low "continued growth" forecast represents a business-as-usual scenario, and the high "VT Roadmap" forecast represents electrification consistent with Vermont climate goals. Peak load capacity is greater in winter than in summer because colder temperatures reduce the electrical resistance of power lines and improve the efficiency of heat dissipation, allowing more power to be transmitted without the risk of overheating or cable sag. For years prior to 2018, the winter peak load values represent the peak during the heating season ending in the year noted on the x-axis.

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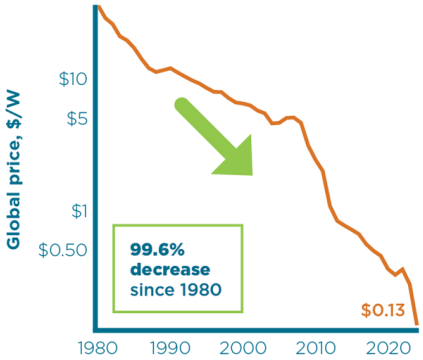
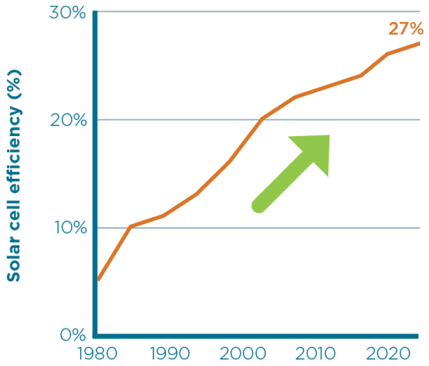
For key electrification technologies, prices have gone down and efficiency has gone up

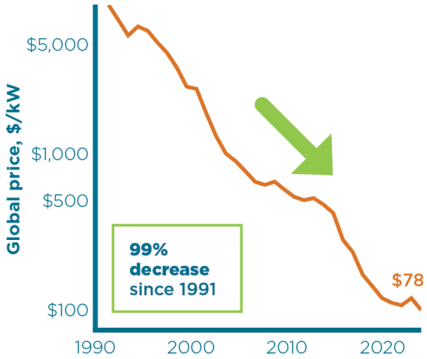
Solar PV module price



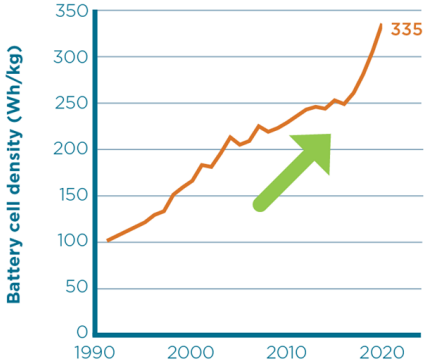
Solar cell efficiency



Battery price



Battery cell density



Source: Ember, "The Electrotech Revolution," 2025. **Note:** Price graphs use a logarithmic scale.

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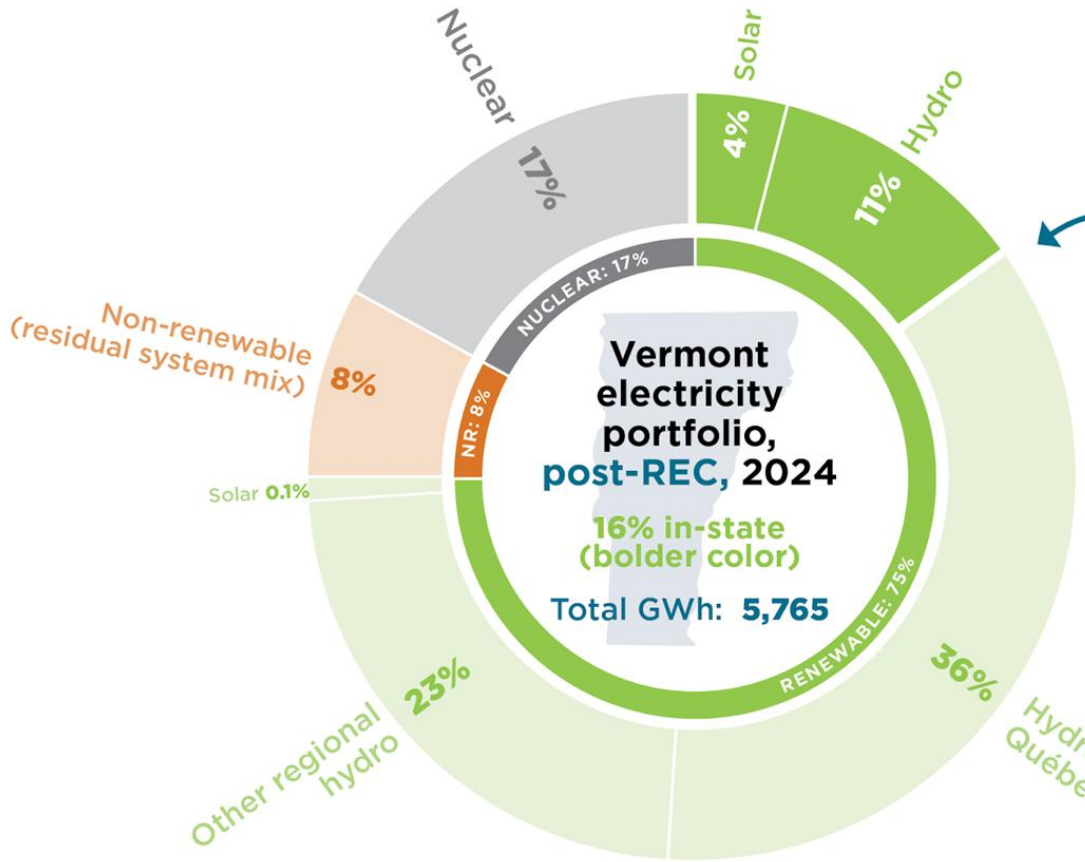

Vermont's post-REC electricity mix is what legally determines Renewable Energy Standard compliance and is what is officially used to measure electricity sector emissions in Vermont's GHG Inventory.

Sources: Vermont Department of Public Service, 2024 RES Compliance; NEPOOL GIS Residual Mix, 2024.
Notes: The residual system mix consists of the unclaimed certificates in the ISO-NE region from NEPOOL GIS after REC trading and is 99% non-renewable (NR). Non-renewable is primarily energy from fossil fuels. Totals may not add up to 100% due to independent rounding.

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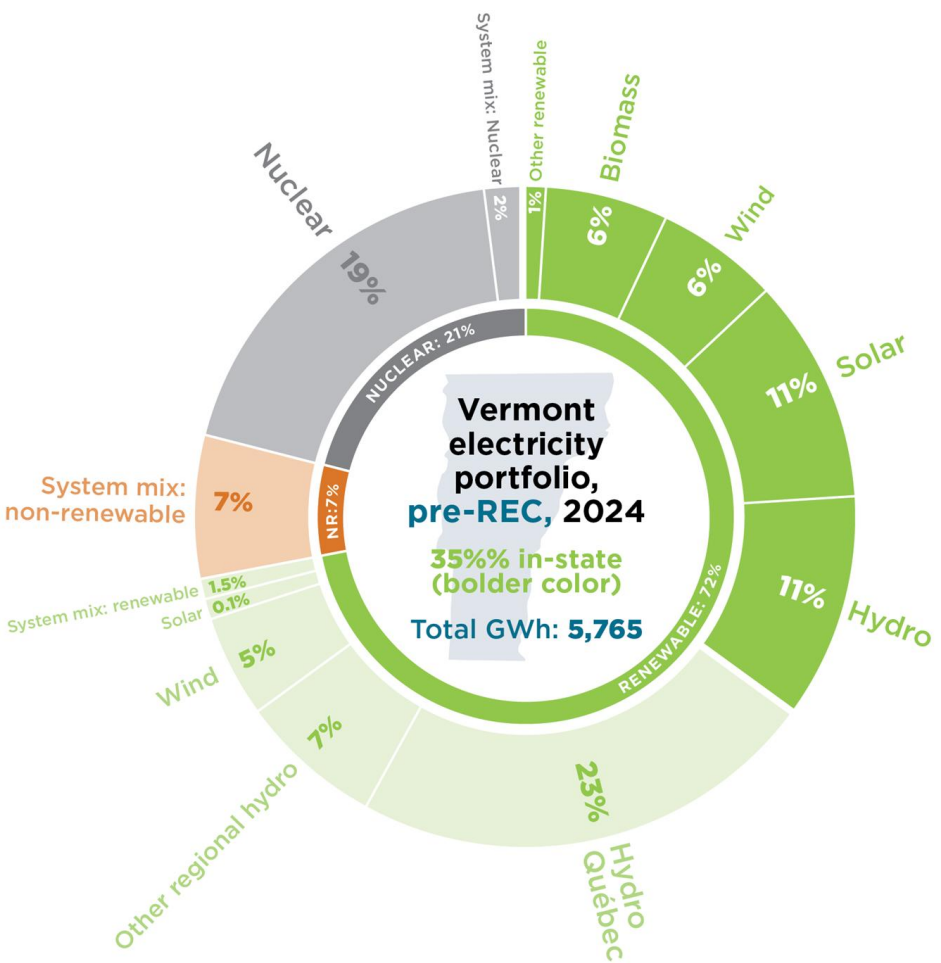

Sources: Vermont Department of Public Service, 2024 RES Compliance; ISO-NE, "Net Energy and Peak Load by Source Report," 2024.
Notes: System mix refers to the ISO New England regional electricity mix. Non-renewable is primarily energy from fossil fuels. Totals may not add up to 100% due to independent rounding.

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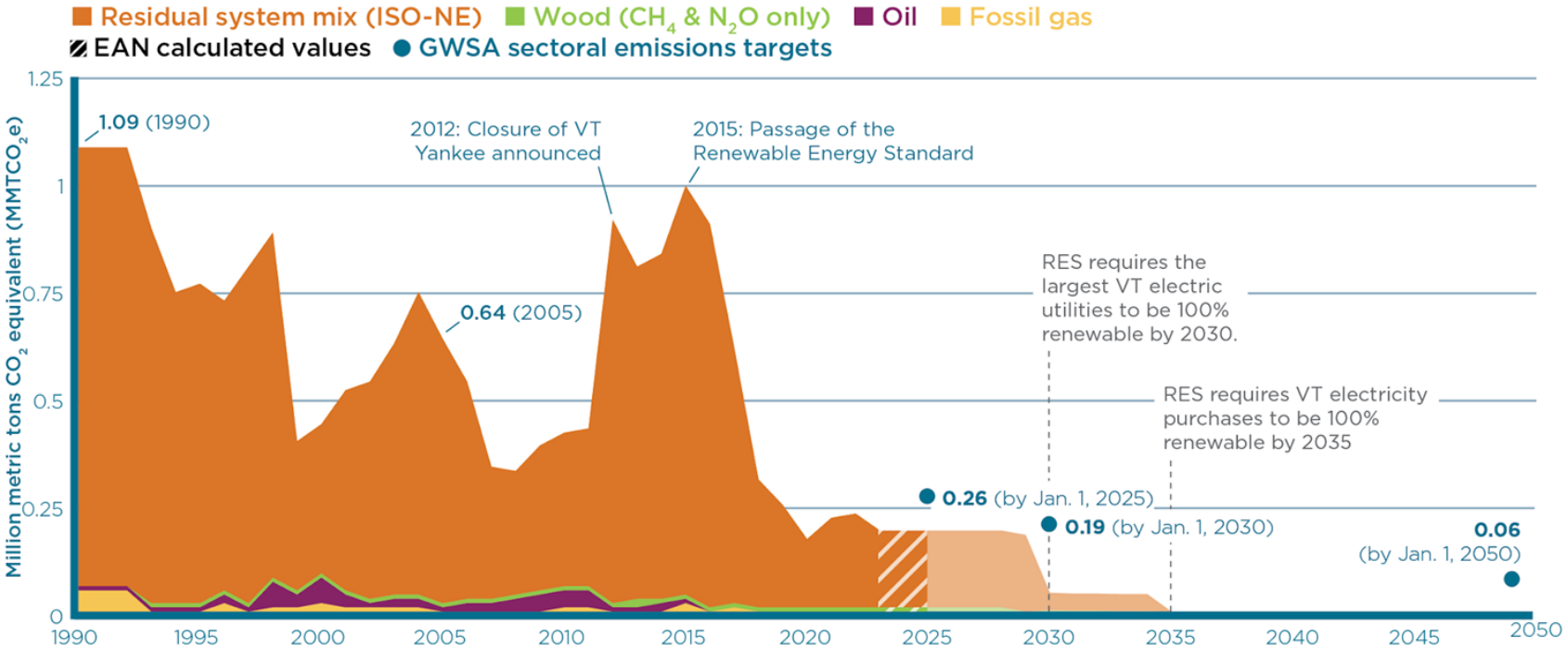
Historical VT electricity GHG emissions and projections based on Renewable Energy Standard



Source: 2005-2022 emissions: Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2022," 2025. 2023-2024 emissions: EAN.

Notes: EAN calculated electricity sector emissions estimates for 2023 and 2024 using electricity delivery data from the Vermont Department of Public Service and GHG emissions factors from NEPOOL GIS (as described in the Vermont Agency of Natural Resources' (ANR) Greenhouse Gas Emissions Inventory methodologies document) plus a carry-forward estimate of emissions from wood-fired electricity generation from the 2022 ANR Greenhouse Gas Emissions Inventory and Forecast. The Renewable Energy Standard (RES) requires that 100% of electricity purchases by VT's largest electric utilities must be renewable by 2030, and 100% of all electricity purchases must be renewable by 2035. The emissions projections from 2025 to 2035 are conservative estimates of utility compliance with the RES.

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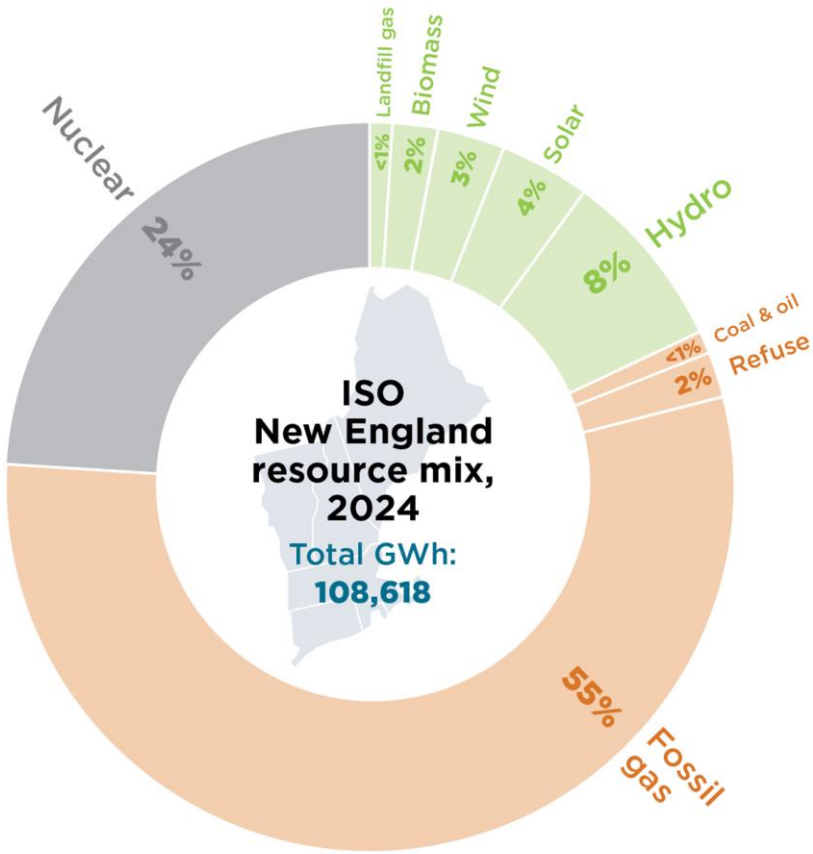

Source: ISO-NE, "Net Energy and Peak Load by Source Report," 2025.
Notes: ISO New England is New England's regional grid operator. Totals may not add up to 100% due to independent rounding.

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