

February 25, 2025

Vermont Transportation Electrification

VEIC Updates for the Vermont House
Transportation Committee

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About VEIC

VEIC is on a mission to generate the energy solutions the world needs.

veic

- Winooski-based nonprofit operates the Efficiency Vermont energy efficiency utility under an order of appointment with the Vermont Public Utility Commission
- VEIC also coordinates the Drive Electric Vermont program in partnership with the State and other stakeholders

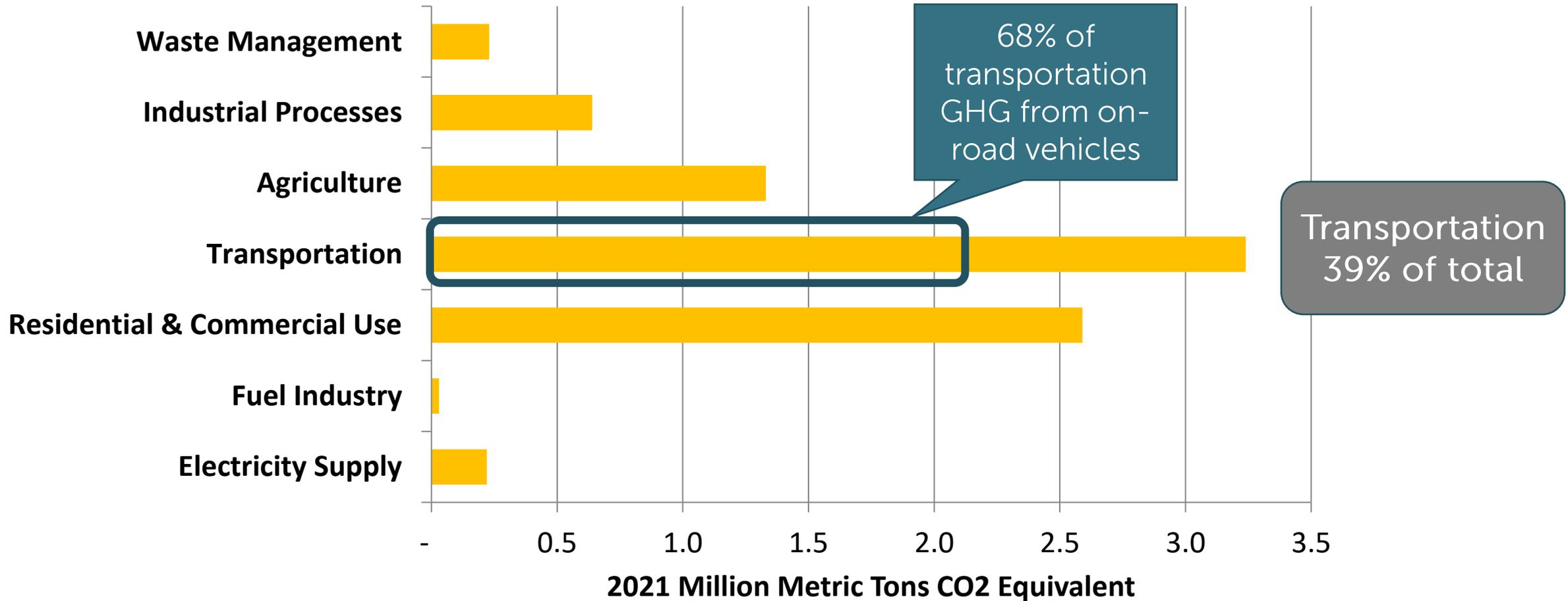
Efficiency
Vermont



- EV Policies and Programs
- Drive Electric Vermont
- Efficiency Vermont Programs
- Industry Trends & Federal Tax Incentives
- Future Considerations

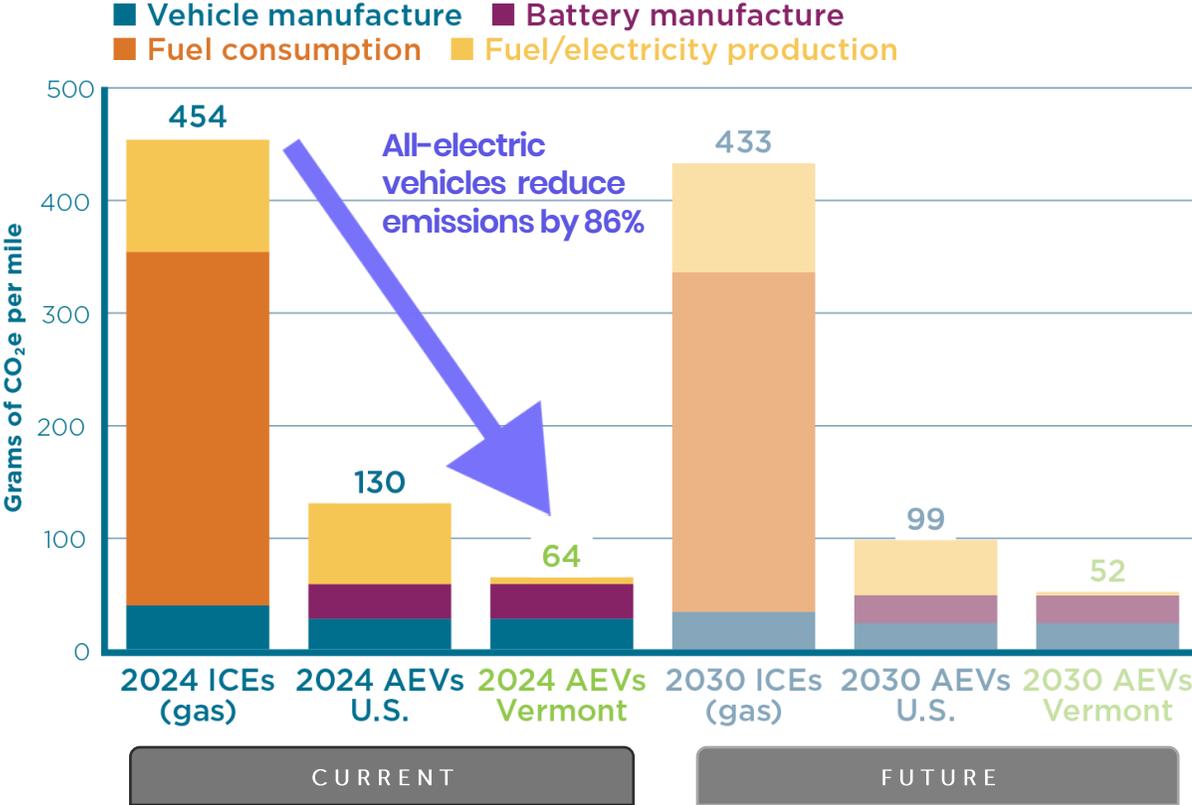
Agenda

Vermont Greenhouse Gas Emissions



EV Emission Reductions

2024 Lifecycle GHG emissions of SUVs in the United States and Vermont



Reducing vehicle travel is the most efficient way to address transportation emissions.

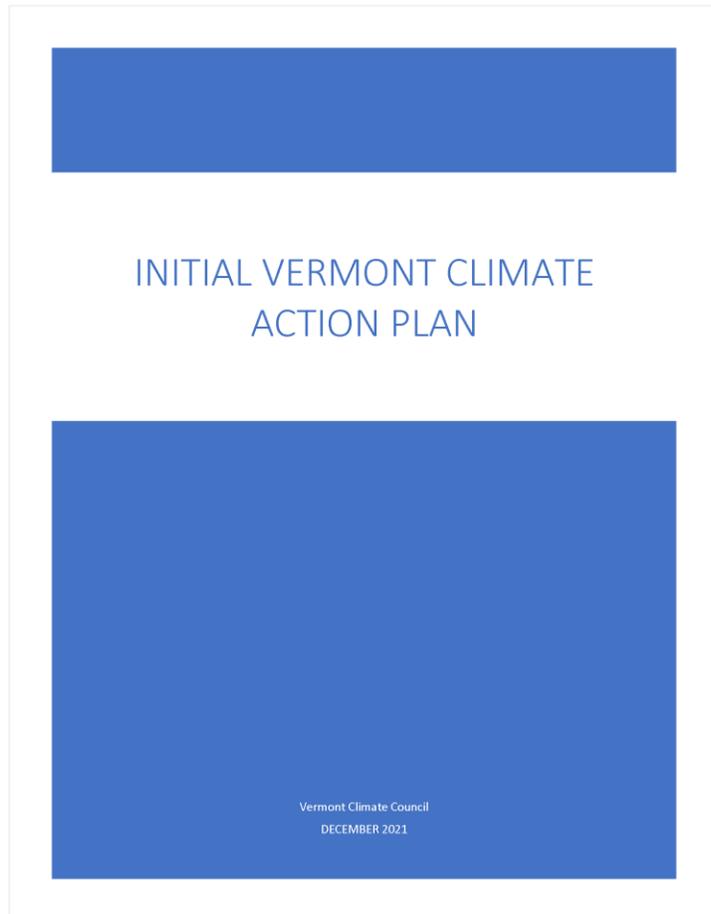


Sources: ICCT, "Life-cycle greenhouse gas emissions of U.S. sedans and SUVs with different powertrains and fuel sources," 2024. Vermont electricity emissions based on 2020 life cycle emissions from Vermont Agency of Natural Resources/ERG, "Vermont Energy Sector Life Cycle Assessment," 2024. Notes: AEV = all-electric vehicle, ICE = internal combustion engine vehicle. Emissions from AEVs are presented separately for the US and Vermont because Vermont's electricity portfolio is much lower-emitting than the national average. Emissions from AEVs in 2030 are expected to be lower than in 2024 because of reduced production-related emissions and continued decarbonization of the electricity sector.



Vermont Climate Action Plan

Transportation Electrification Mitigation Pathways – DEV Support



Light Duty Vehicle Electrification

- Advanced Clean Cars Regulation
- Purchase Incentives
- Public Charging Infrastructure
- Education & Marketing

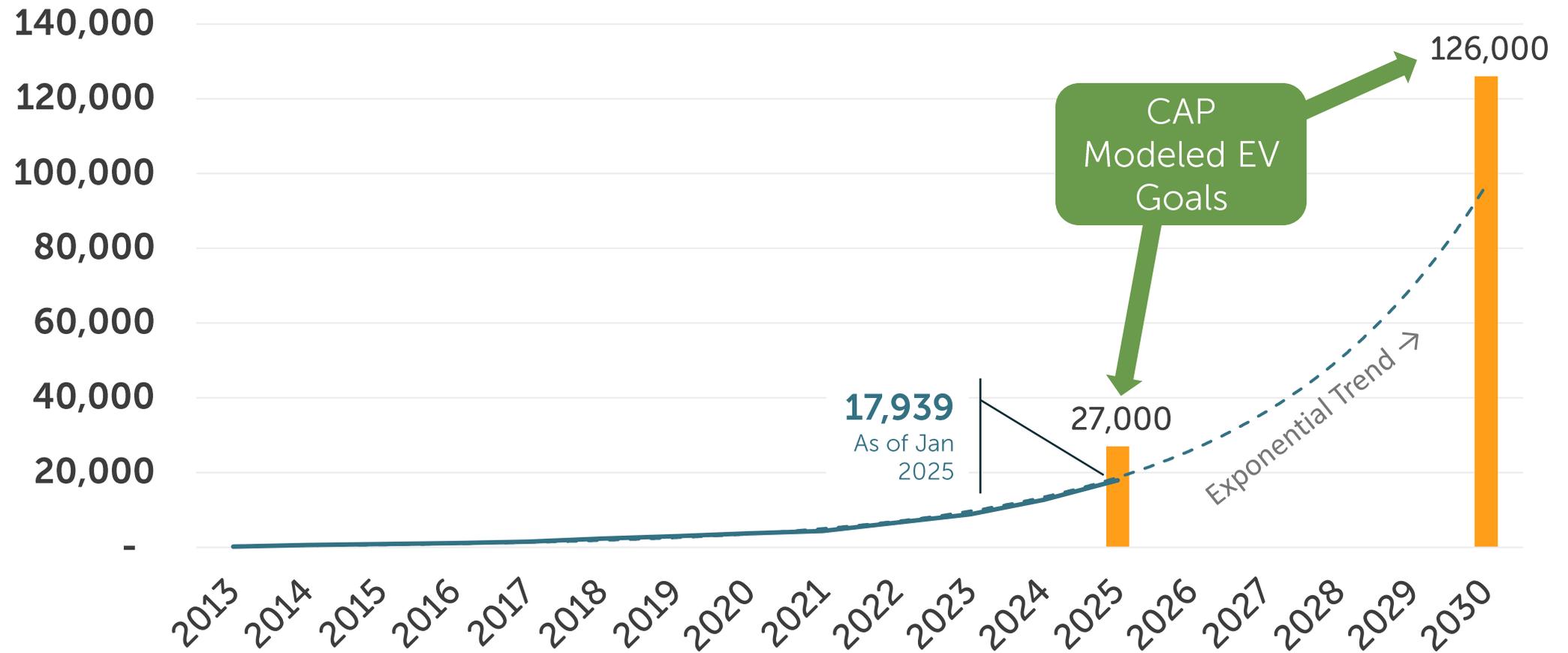
Heavy Duty Vehicle Electrification

- Advanced Clean Trucks Regulation
- Fleet Technical Assistance

VMT Reduction

- eBike Activities

How many vehicles does Vermont need to electrify?



VT Transportation Electrification

An Evolving Framework of Support – Carrots, Sticks, & Megaphones

Light Duty EVs

- State of Vermont incentives (personal and business vehicles)
- Replace Your Ride
- Electric utilities - State Renewable Energy Standard Tier III programs
- Federal EV tax credit (new and used)
- Automaker incentives
- Advanced Clean Cars I and II Regulations

Medium & Heavy Duty EVs

- Federal Low/No Emission bus grants
- Federal / VT ANR DERA grants
- VW Environmental Mitigation Funds
- Electric utilities (Tier III)
- EPA Clean School Bus program
- Federal Commercial Clean Vehicle Tax Credit
- Advanced Clean Truck Regulation

E-bikes and motorcycle

- State of Vermont
- Electric utilities (Tier III)
- Local Motion / VBike / Vital Communities programs



EV Charging

- VW Environmental Mitigation Funds
- Federal sources (NEVI, ARPA, CFI funding)
- State funds (via ACCD/GMP)
- Electric utilities / PUC (Tier III, EV rates)
- Energy Efficiency Modernization Act – EEMA (at dealers)
- Agency of Ag weights & measures consumer protection

Dealer Supply Chain Development

- Efficiency Vermont EV dealer network
- Incentive program dealer training and coordination

Consumer Awareness and Education

- Drive Electric Vermont
- Efficiency Vermont marketing campaign activities
- Electric utilities
- Local advocates
- Auto manufacturers
- Auto dealers

EV Policies & Programs

Drive Electric Vermont

Efficiency Vermont
Programs

EV Industry Trends &
Federal Tax Incentives

Future Considerations

**Drive Electric
Vermont:
Trusted
Information
for Vermont
Consumers &
Businesses**

About Drive Electric Vermont

- Drive Electric Vermont is a public-private partnership established in 2012 by VEIC and the State of Vermont
- Working to advance transportation electrification through:
 - Industry coordination and support
 - Consumer education and outreach
 - State incentive program support and dealer engagement
 - Business and municipal fleet support
 - EV charging planning and support



<https://www.driveelectricvt.com/>

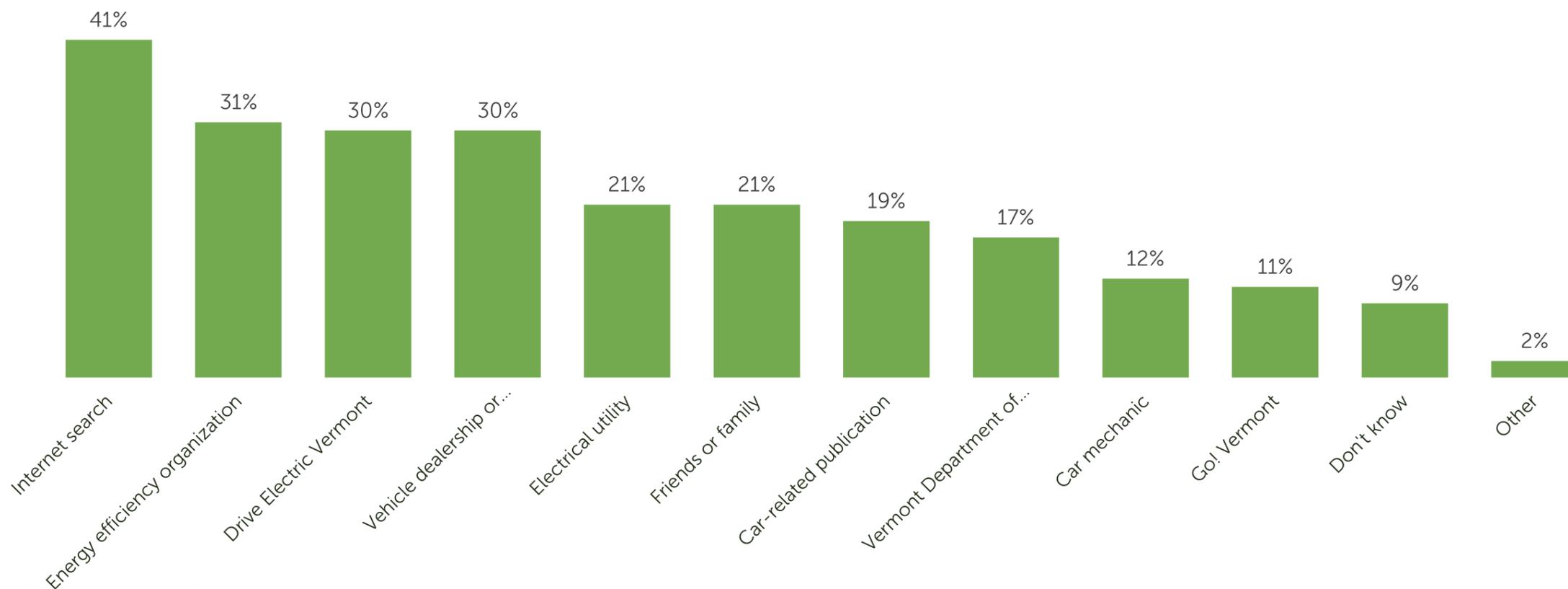
DEV Outreach and Education

- Most consumers aware of EV technology, but aren't sure about a purchase
 - 20% ready to purchase for next vehicle
 - **60% uncertain**
 - 20% not interested
- Firsthand experience increases consideration
 - Just riding in an EV doubled interest
- Resources and tactics
 - DEV website – redesign launched in January
 - Incentive tools
 - Customer support
 - Marketing campaigns (Efficiency Vermont through EEMA)
 - Equity-focused research and program development
 - In-person and virtual events

**About 1/3 of EV
"non-considerers" cite
lack of information as a
barrier**

How would VTers research EV Incentives

Appearing high on search rankings is important for influencing EV shoppers.
Relative to research for vehicles in general, local resources may be more popular.



Q: If you were considering buying an electric vehicle or plug-in hybrid, what resources would you use to research them, or any rebates/incentives available? Please select all that apply.

<https://www.encyvermont.com/online-trainings/are-vermonters-ready-to-drive-electric>

DEV Incentive Resource

“As understanding of EV incentives rises, so does the likelihood of consideration. However, approximately 40% of shoppers say they do not have a solid understanding of such incentives.

Prioritizing initiatives and efforts to educate consumers about the EV proposition – including available incentives and how they work – is vital to accelerating market growth.”

[2024 J.D. Power U.S. Electric Vehicle Consideration Study](#)

DRIVE ELECTRIC VERMONT

ABOUT EVS SHOPPING CHARGING NEWS & RESOURCES

Language

Incentives

Use the "Filter Incentives" button below to find incentives based on your utility and preferred technology. Incentives can often be combined, but since they change frequently, we recommend verifying details and eligibility with the incentive administrator, your dealership, tax professional, or the IRS to ensure accuracy.

Filter Incentives 5 Incentives for:

X Morrisville Water & Light Department X All-electric vehicles X Residential Clear All

Sort Incentives by... Alphabetical order

	ALL-ELECTRIC VEHICLES, PLUG-IN HYBRID VEHICLES (NEW) New Electric Vehicle Incentive Get up to \$5,000 from the State of Vermont for the purchase or lease of a new EV or plug-in hybrid with a base MSRP of \$52,500 or less.	RECEIVE \$1,500 to \$5,000	View Details
	ALL-ELECTRIC VEHICLES, PLUG-IN HYBRID VEHICLES (NEW) New EV Tax Credit Get a federal tax credit up to \$7,500 on an eligible new EV.	TAX CREDIT VALUE \$0 to \$7,500	View Details
	ALL-ELECTRIC VEHICLES (NEW AND USED) Replace Your Ride Incentive Get up to \$5,000 from the State of Vermont to purchase a new or used EV or receive a prepaid debit card to be used for another form of clean transportation.	RECEIVE \$2,500 to \$5,000	View Details
	ALL-ELECTRIC VEHICLES (USED) Used Electric Vehicle Incentive Get 25% of the purchase price of a used EV, up to \$2,500. SNAP recipients can receive up to \$5,000.	RECEIVE UP TO \$5,000	View Details
	ALL-ELECTRIC VEHICLES, PLUG-IN HYBRID VEHICLES (USED) Used EV Tax Credit Get a federal tax credit of 30% of the purchase price of an eligible used EV, up to \$4,000.	TAX CREDIT VALUE \$0 to \$4,000	View Details

Chat

Filters for type of vehicle, electric utility, and customer type

<https://www.driveelectricvt.com/incentives>

Stacked Incentive Example

State programs currently suspended

	New 2025 Chevrolet Equinox 285-319 Mile Range	
	Standard Incentive	< \$60k Income Incentive
Starting Price	\$33,600	\$33,600
Federal Tax Credit	-\$7,500	-\$7,500
State EV Incentive	\$2,500	\$5,000
State Replace Your Ride	\$2,500	\$5,000
Utility Incentive (varies)	-\$2,200	-\$3,200
Price after Incentives	\$18,900	\$12,900

Dealer point-of-sale recommended

Required scrapping a 10+ year old vehicle

DEV Technical Assistance

- Consumers
 - Incentive advice and support
 - EV charging information
- Businesses and municipalities
 - EV charging support
 - Fleet vehicle transitions
 - Coordination with electric utilities
- Multifamily charging
 - Supporting State of Vermont funding programs
- Federal funding opportunities
 - Assisted VTrans in developing NEVI fast charging plans for designated highway corridors and CFI grant applications
 - Additional State EV charging planning activities



Electrification of Transit Vehicles

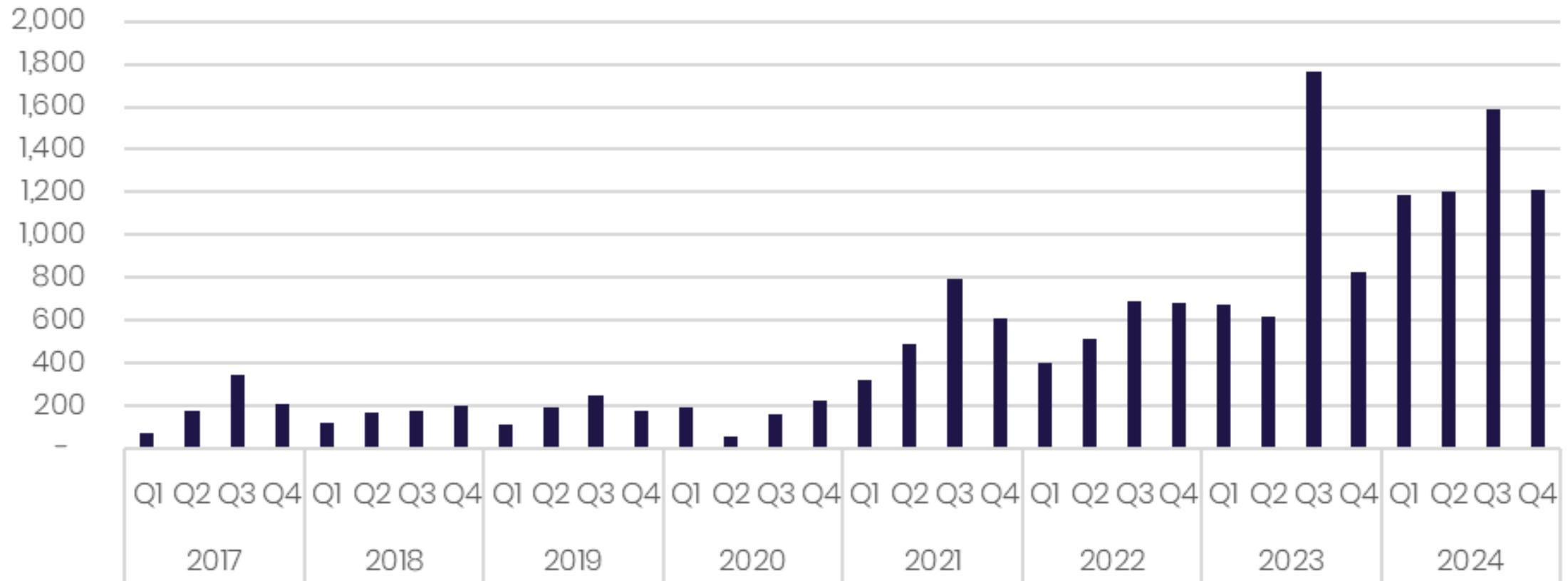
- VEIC provides consultative services to VTrans' Public Transit Section to support implementation of the VTrans Zero-Emission Transit Plan
- Technical assistance provided to VTrans and VT transit providers includes:
 - Grant writing
 - Planning for EV chargers & support for installation
 - Equipment procurement support
 - Vendor engagement
 - Managed charging strategies
 - Coordination with VT utilities
 - Evaluation of vehicle performance



Photo credit: VTrans

Vermont EV Adoption Continues Growing

Vermont EV Registrations - Quarterly Net Increase



DEV FY2026 Funding Request

VEIC is requesting \$500,000 in FY2026 to continue Drive Electric Vermont program activities, including:

- Industry coordination & support
 - Quarterly stakeholder meetings
- Consumer EV education & outreach
 - DEV website maintenance and updates
 - Customer support
 - Event support
 - Equity-focused initiatives
- Business & municipal EV engagement
 - Charging and fleet EV technical assistance
- State agency support



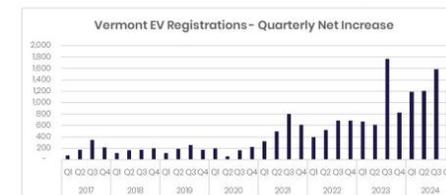
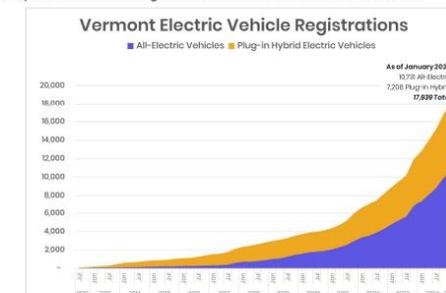
January 2025 Update

VEIC has managed the Drive Electric Vermont (DEV) program since 2012 in partnership with the State of Vermont and over 200 other public and private partners to support electric vehicle (EV) adoption. And it is working!

Through our coordination and support with businesses, State agencies, and Vermonters, we have led the way in bringing together the information and the people to increase adoption of EVs and save businesses, government, and Vermonters' transportation dollars.

Industry Coordination and Support

- 51 quarterly stakeholder meetings over the past 13 years to enable cross-sector coordination, share program information, and highlight emerging technologies.
- VEIC resources to support 275 stakeholders, including State agencies, EV industry partners, and Vermont-based organizations.
- EV indicator tracking in partnership with the VT Agency of Natural Resources. As of January 2025, EVs were registered in 99% of Vermont communities.



EV Policies and
Programs

Drive Electric Vermont

Efficiency Vermont EV
Programs

Industry Trends &
Federal Tax Credits

Future Considerations

Energy Efficiency Modernization Act

Energy Efficiency Modernization Act

Act 151 of 2020 and
Act 44 of 2023



EVT Transportation Background

2020 legislation enabled Efficiency Vermont transportation pilot

- Allows Efficiency Vermont and Burlington Electric Department to implement programs, measures, and services that **reduce GHG emissions** in the **thermal energy or transportation sectors**, or both
 - Up to **\$2 million*** per year
 - Must have nexus with **electricity** usage
 - Must be **additive/complementary** to existing efforts
 - Initial pilot **2021-2023**
- Efficiency Vermont EEMA **Transportation Market Transformation** program focus areas:
 - **EV supply chain development**
 - **EV consumer awareness and education**
- Plan was approved by VT Public Utilities Commission and launched in late 2021
- *Act 44 (passed in 2023) extended pilot another 3 years*

**Transportation program comprises ~50% of overall EEMA budget, with the remainder supporting a low-income thermal electrification pilot*

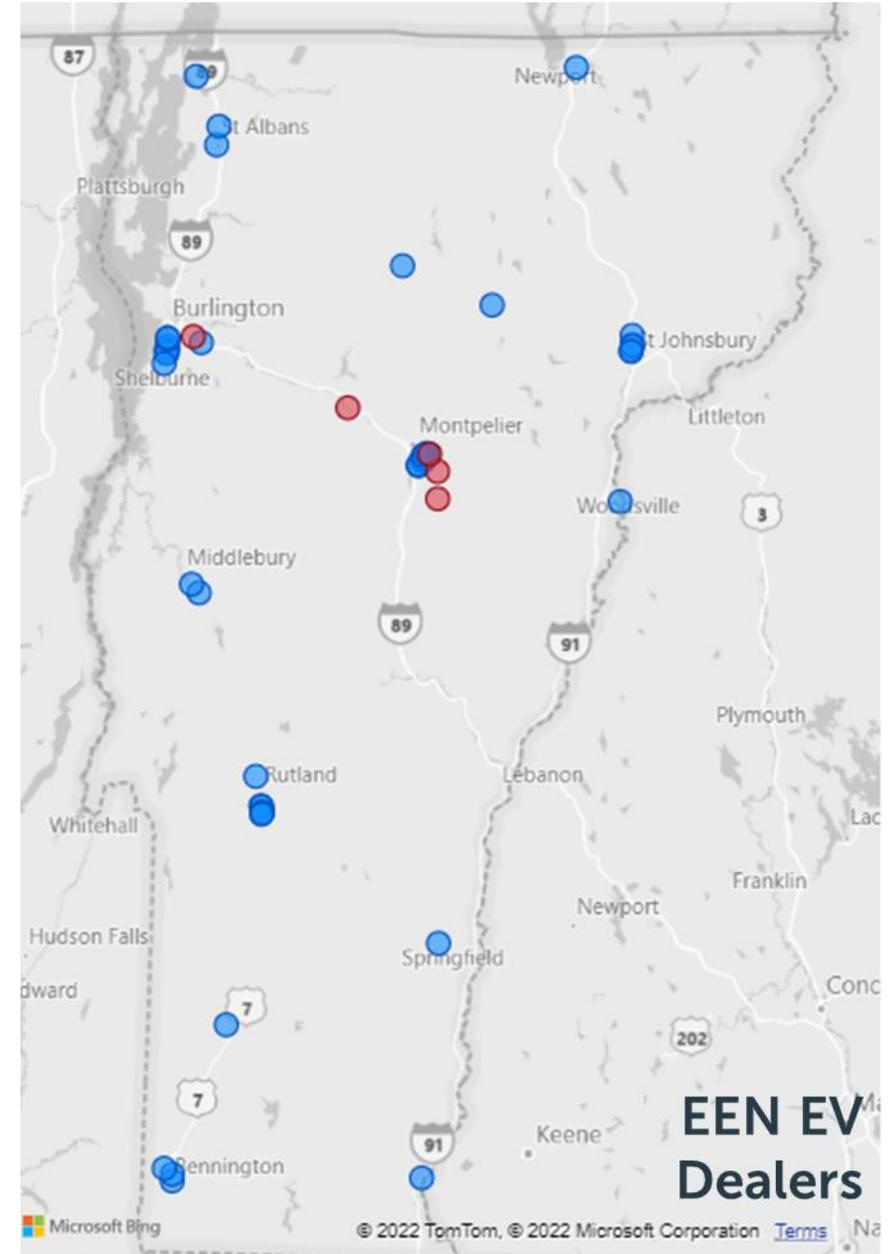
<https://legislature.vermont.gov/bill/status/2024/S.137>



EV Dealer Program

Support the adoption of plug-in EVs across Vermont by creating a network of new and used car dealers committed to EV promotion & consumer education

- Pilot program offered in conjunction with statewide EV education campaign
- 51 participating dealers representing 12 counties
 - 46 new car dealerships (NCD)
 - 5 used car dealerships (UCD)
- Program benefits include funding for EV infrastructure (charging, tools), dealer/salesperson incentives, training and education, point of sale/marketing materials and promotional support



Dealer Type ● NCD ● UCD

2021-2023 Program Results

- **51** EEN EV Dealers
- **112** sales staff trained
 - 41 EEN EV Dealers represented
 - 18 EV Sales Training sessions offered (in-person and virtual)
- **40** dealers have accessed program sales incentives
- **30** EV readiness (infrastructure) projects supported
 - 21 charging station projects
 - 7 EV service tools & equipment projects
 - 2 OEM EV certification project
- **1,246** EVs supported



DCFC at an EEN EV Dealership

EV Consumer Awareness Campaign

Statewide, multi-channel campaign (2020-2023) promoting Drive Electric Vermont

Key Activities

- Ads tailored to every step of an EV consumer's journey, from awareness to consideration and decision-making (TV, radio, community news, digital, streaming, social, bus wraps)
- Dealer Point of Sale materials
- Educational blogs & website tools
 - [EV comparison tool](#) – compare fuel efficiency, available incentives, and total cost of ownership
- [EV Research](#) on awareness, car-shopping behaviors and preferences



Campaign Performance

- Website Users: 171% increase over campaign period
 - Sessions: 172% increase
 - Pageviews: 174% increase
 - Traffic Sources: 57% advertising (incl. Point of sale materials), 30% organic search, 7% partners/referrals, 6% social media

EVT – 2024 and Beyond

EEMA 2024-2026 Proposal focused on filling gaps in the market

- Shift Consumer Awareness Campaign away from broad channels (such as TV) to targeted digital advertising and direct in-person engagement, especially in low-EV adoption areas
- Understand and help support the unique needs of Used Car Dealerships and bolster the supply chain for used EVs
- Support current participating dealerships in complying with new state and federal requirements

EV Policies & Programs

Drive Electric Vermont

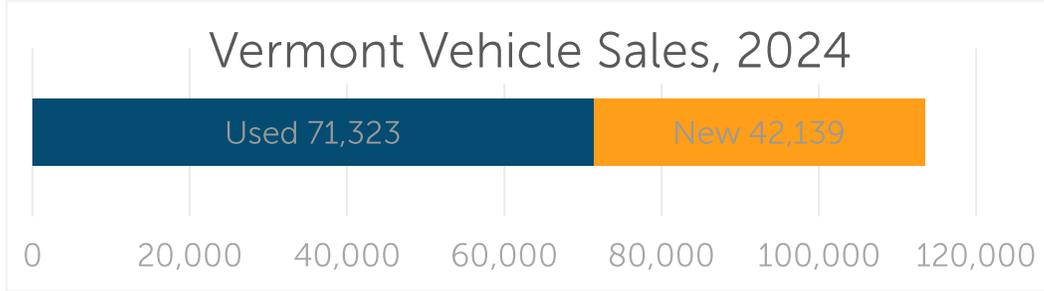
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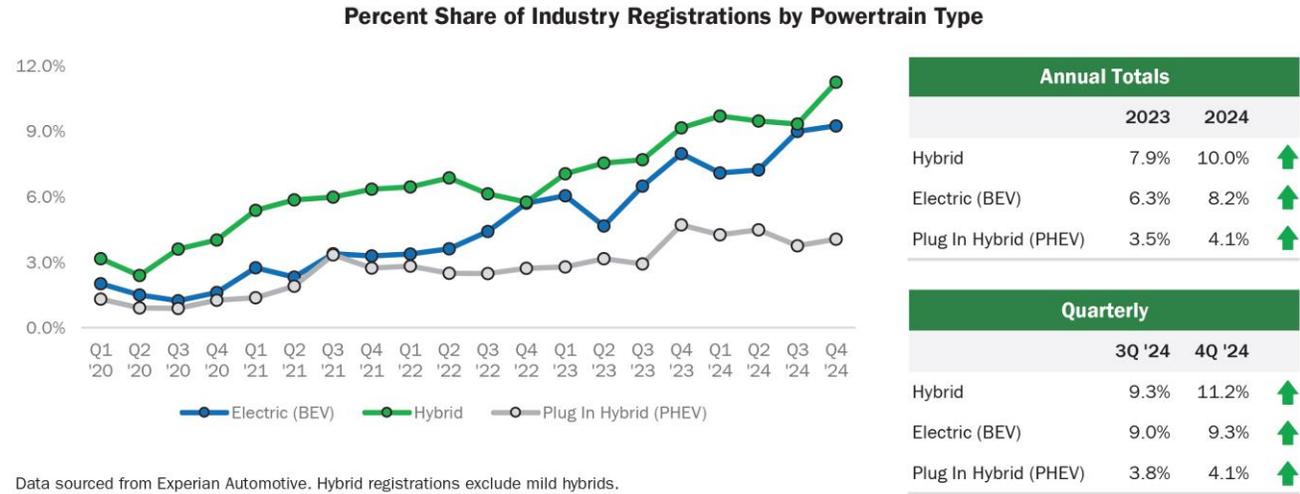
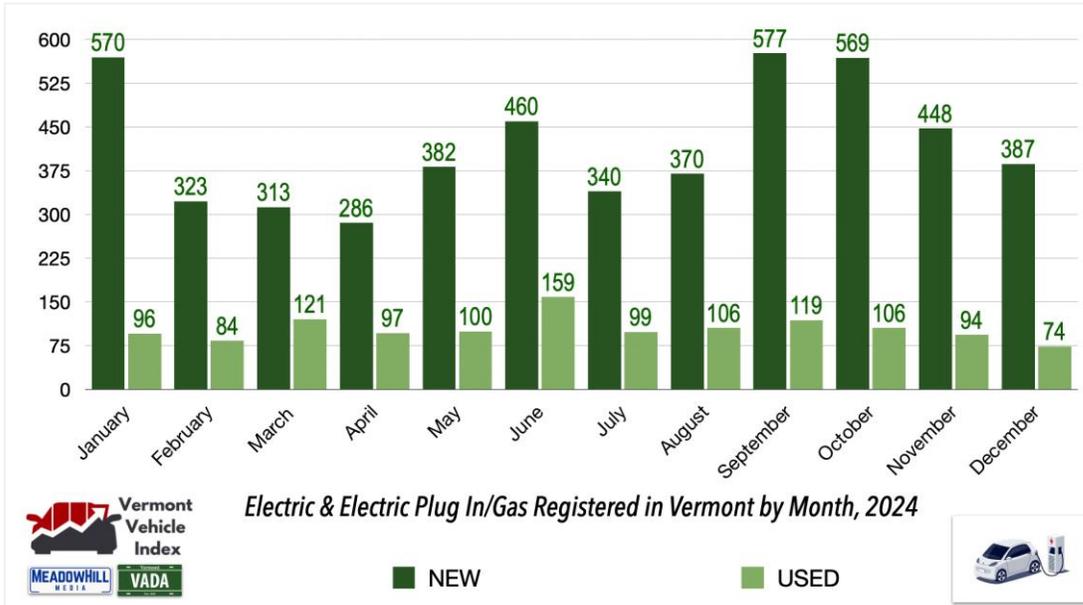
Future Considerations

Vermont Vehicle Electrification: Industry Trends

VT EV Industry Trends



About 2/3 of VT annual sales are used vehicles



Vermont All-Electric and Plug-in Hybrid New Vehicle Market Share

2024 Annual Total: 12.3%
 2024 Quarter 4: 13.4%

Federal EV Tax Credits for Consumers

Changes likely in 2025

New EVs

- All-electric or PHEV with battery of at least 7 kWh.
- A vehicle is eligible for one-half of the total credit (\$3,750) if the vehicle has **battery components** that are manufactured or assembled in North America.
- To be eligible for the other \$3,750, a vehicle must have **critical minerals** that were extracted or processed in the U.S. or countries with which the U.S. has a free trade agreement, or use critical minerals that were recycled in North America.
- New EV price caps: cars under \$55,000; SUVs, vans, and pickup trucks under \$80,000.
- New EV income caps: \$150,000 for single filers, \$225,000 for head of household and \$300,000 for joint filers.
- Leasing is a workaround for many eligibility requirements - any leasing company can receive a \$7,500 commercial vehicle tax credit for an EV lease, which can be passed through to the lessee.

Used EVs

- 30% of purchase price, up to \$4,000.
- Used EV price cap: \$25,000.
- Vehicle at least 2 years old and has not received a used credit previously.
- Used EV income caps: \$75,000 for single filers, \$112,500 for head of household and \$150,000 for joint filers.
- Consumer must not have received used EV credit in last 3 years.

Registered dealers can pass through credits at the point-of-sale; tax liability not a limiting factor for these purchasers

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**What's next to
drive progress**

Summary / Next Steps

1. Vehicle market is changing rapidly. EV supply is increasing, but affordability remains challenging.
2. Most Vermont EV drivers charge at home, but more public charging is needed and reliability must improve.
3. DEV's work provides connections across EV programs and supports critical education & outreach activities.
4. Energy Efficiency Modernization Act supports EV market growth. Consistent engagement with the supply chain is critical to maintaining momentum.
5. Growing opportunities for EVs to support climate resiliency.

GREEN CAR REPORTS

**2024 Chevy Blazer EV
doesn't offer home
power backup yet, but
it's ready**



https://www.greencarreports.com/news/1141819_2024-chevy-blazer-ev-v2h-home-power-backup-gm-energy

Questions?



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