

# *Plug In & Power Up:*

## *A Guide to EVs in Vermont*

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August 26, 2025

# Agenda

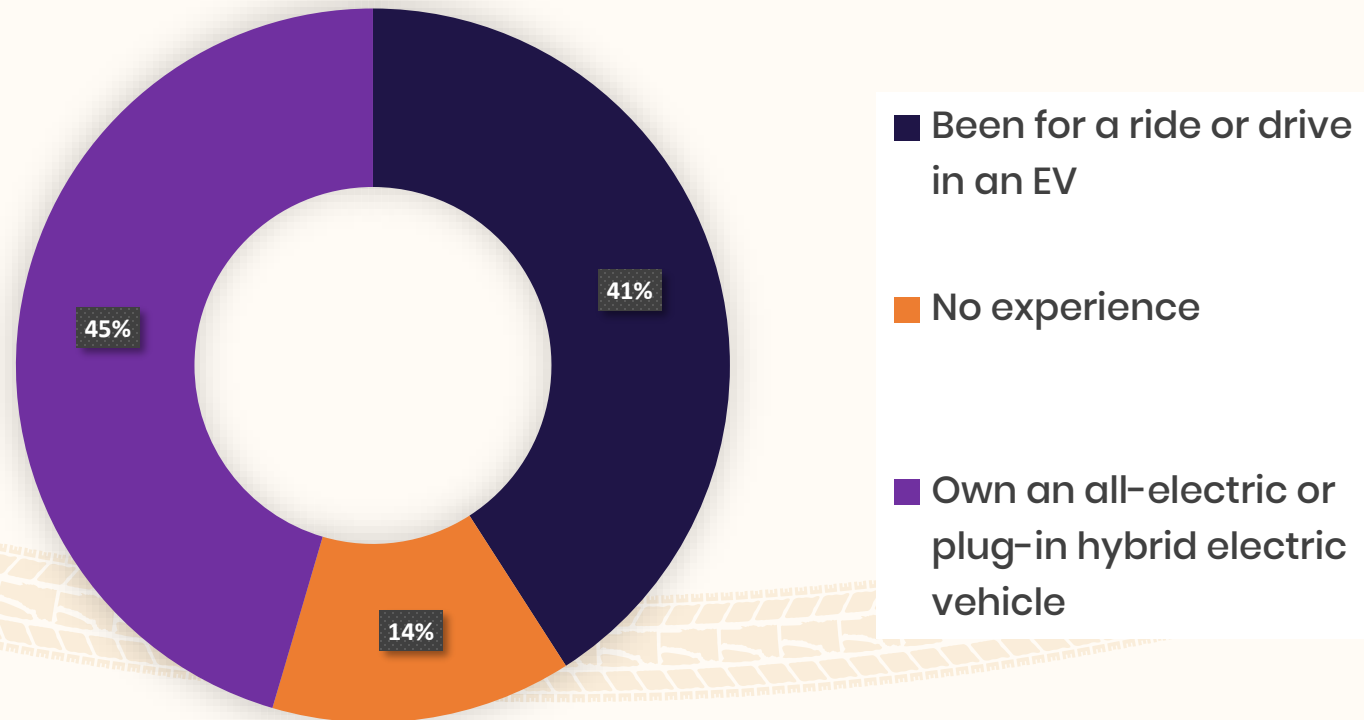
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1. Drive Electric Vermont Introduction
2. EV Overview
  - Available Vehicles
  - Winter Operation
  - Charging at Home and On-the-Road
  - Potential Cost Savings
3. Current EV Purchase Incentives
4. Discussion / Q & A



# What's Your Experience With Electric Vehicles?

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# About VEIC

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

The logo for VEIC, featuring the word "veic" in a bold, lowercase, orange sans-serif font.

- **Winooski-based** nonprofit operates the Efficiency Vermont energy efficiency utility
- VEIC also coordinates the Drive Electric Vermont program in partnership with the State and other stakeholders

The logo for Efficiency Vermont, with "Efficiency" in blue and "Vermont" in green, separated by a thin green arc.



# Why Go Electric?

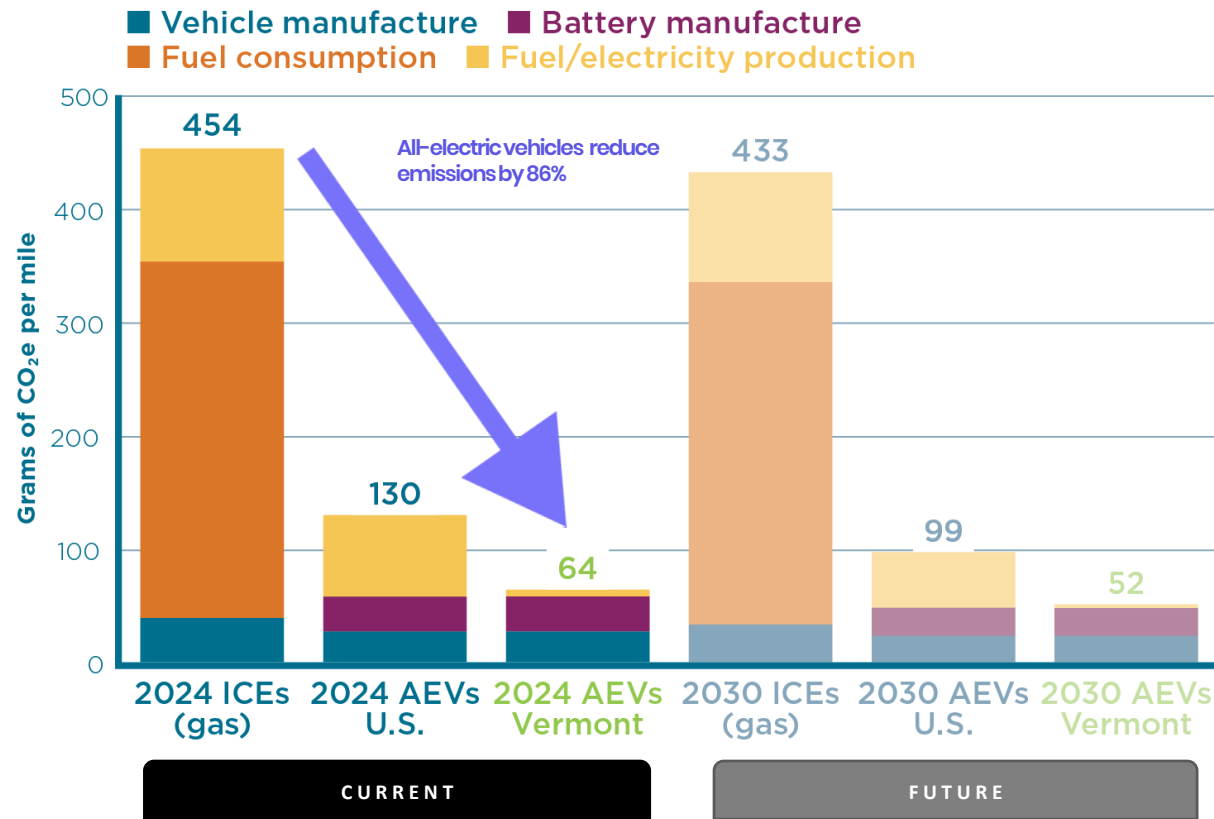
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- Save money
- Reduce emissions
- Great performance
- Quiet
- Convenient charging at home

# EV Emission Reductions

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



**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.



### Tip

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



# A Few Popular EV Models

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## All-Electric Vehicles



### Chevrolet Equinox

285 Miles  
\$34k+  
\$7,500 fed tax credit available



### Nissan Leaf

149-226 Miles  
\$28k+



### Hyundai Ioniq 5

220-300 Miles  
\$42k+  
\$7,500 fed tax credit available

## Plug-in Hybrid Vehicles



### Toyota Prius Plug-in

39/550 Miles  
\$33k+



### Hyundai Tucson PHEV

33/420 Miles  
\$39k+



### Toyota RAV4 Plug-in

42/600 Miles  
\$44k+



<https://www.driveelectricvt.com/shopping/find-your-ev>

# Other Electric Options

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Buses



Commercial Vehicles



CarShare



Lawn Care and Other Equipment



Bicycles

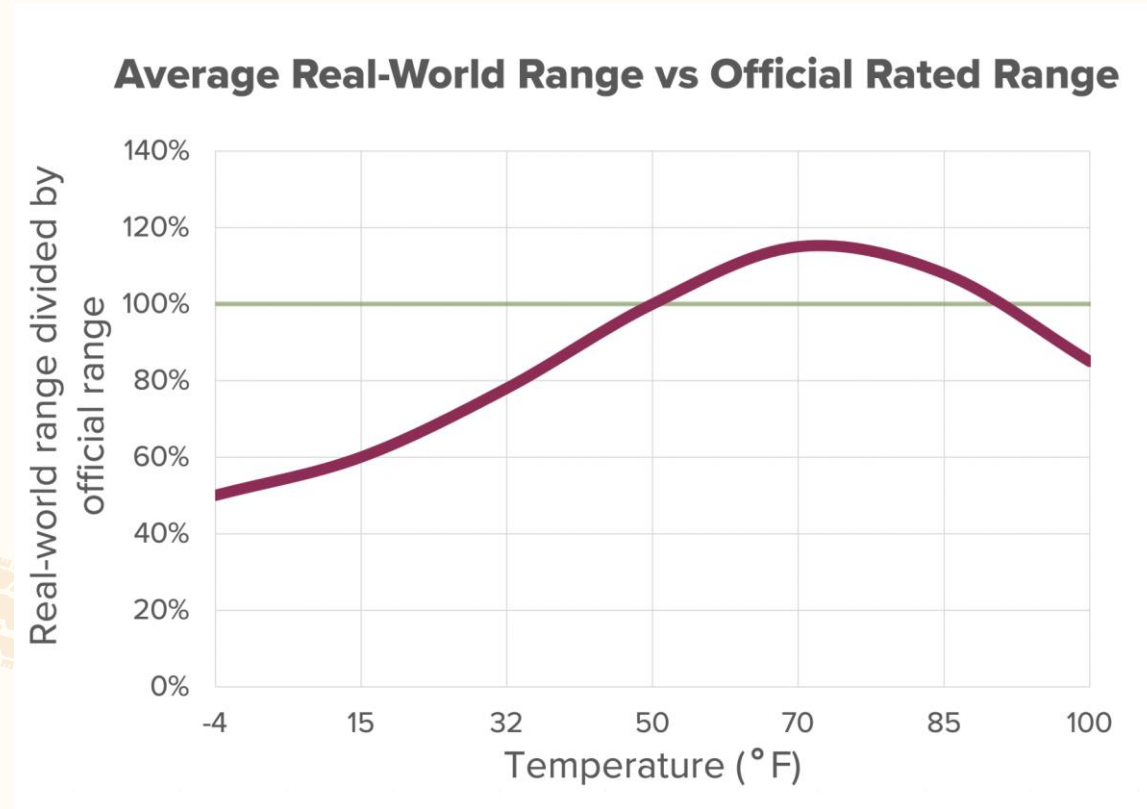


Motorcycles



# EVs in Vermont Conditions

## Cold weather reduces electric range 20–50%



### Range Saving Tips

- Heated seats / steering wheels
- Heat pumps on some EVs
- Cold weather packages
- Preheating
- Drive slower

### Other Considerations

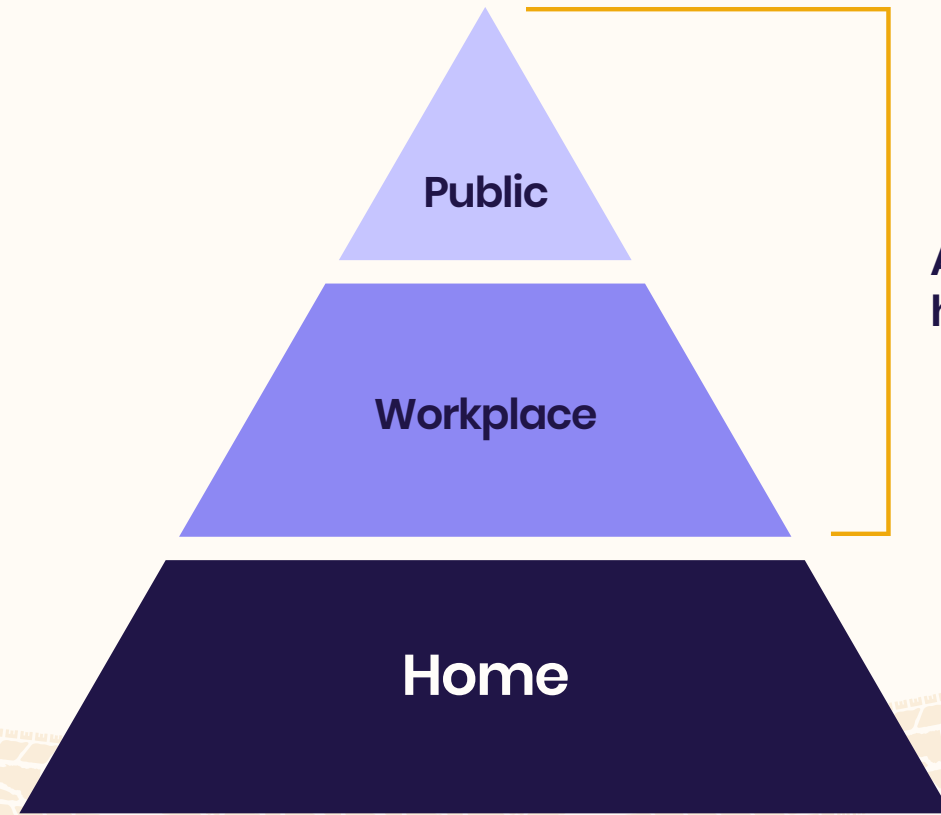
- Slower fast charging and battery preconditioning
- Battery chemistry characteristics



# EV Charging

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Away from  
home charging



# EV Charging Equipment



## Level 1 Charging

120V  
5 miles range / hr

Plug Types:



J1772



NACS / Tesla



## Level 2 Charging

240V  
10-20 miles / hr

Plug Types:



J1772



NACS



## DC Fast Charging

480V  
Up to 160 miles / 10 min

Plug Types:



CCS / Combo



CHAdemo



NACS



# Home Charging – Potential Savings

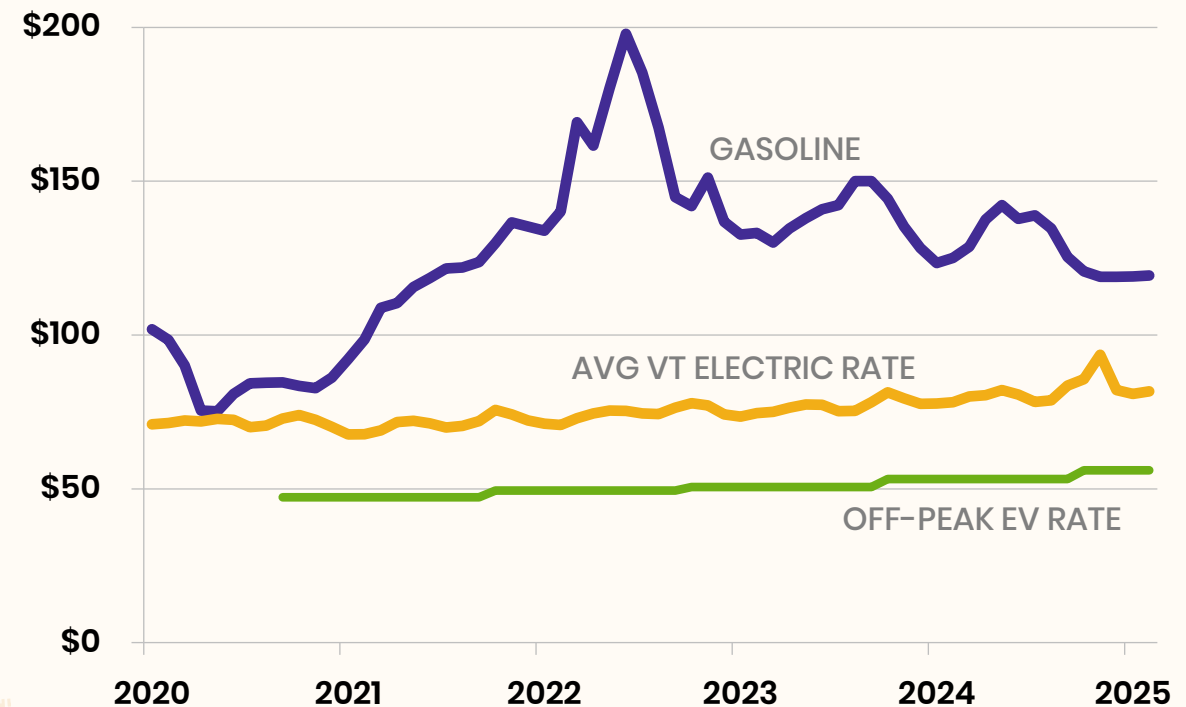
- Home charging is typically the most convenient and lowest cost option
  - Access to GMP off-peak home charging rates can bring cost down further
  - Renters and condo owners may have challenges installing home charging
- Public level 2 charging is more expensive but still typically less or equal to gasoline
  - Fast charging is often priced at a premium due to higher costs and convenience

## EV “Gas Taxes”

- Higher EV registration fees started in January
  - All-electric: +\$89/yr
  - PHEV: +\$45/yr
- VTrans considering mileage-based user fee in the future



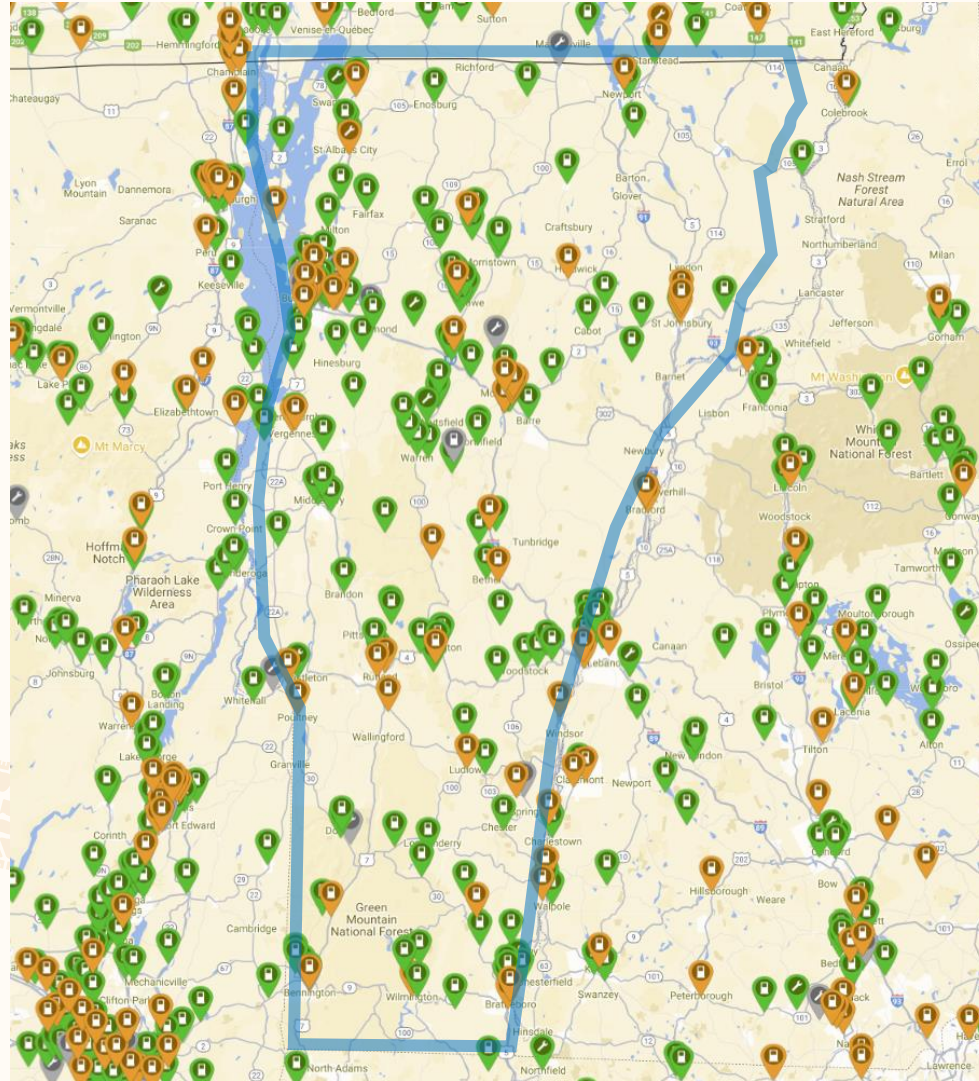
## MONTHLY TRANSPORTATION ENERGY EXPENSES



Sources: US Energy Information Administration VT avg home electric rate and VEIC  
Assumptions: 25 mpg gasoline vehicle; 3 mile per kWh EV; 1,000 miles per month

<https://www.driveelectricvt.com/shopping/cost-of-ownership>

# Public Charging Availability



**497 Locations in Vermont**

**87 with Fast Charging (orange)**



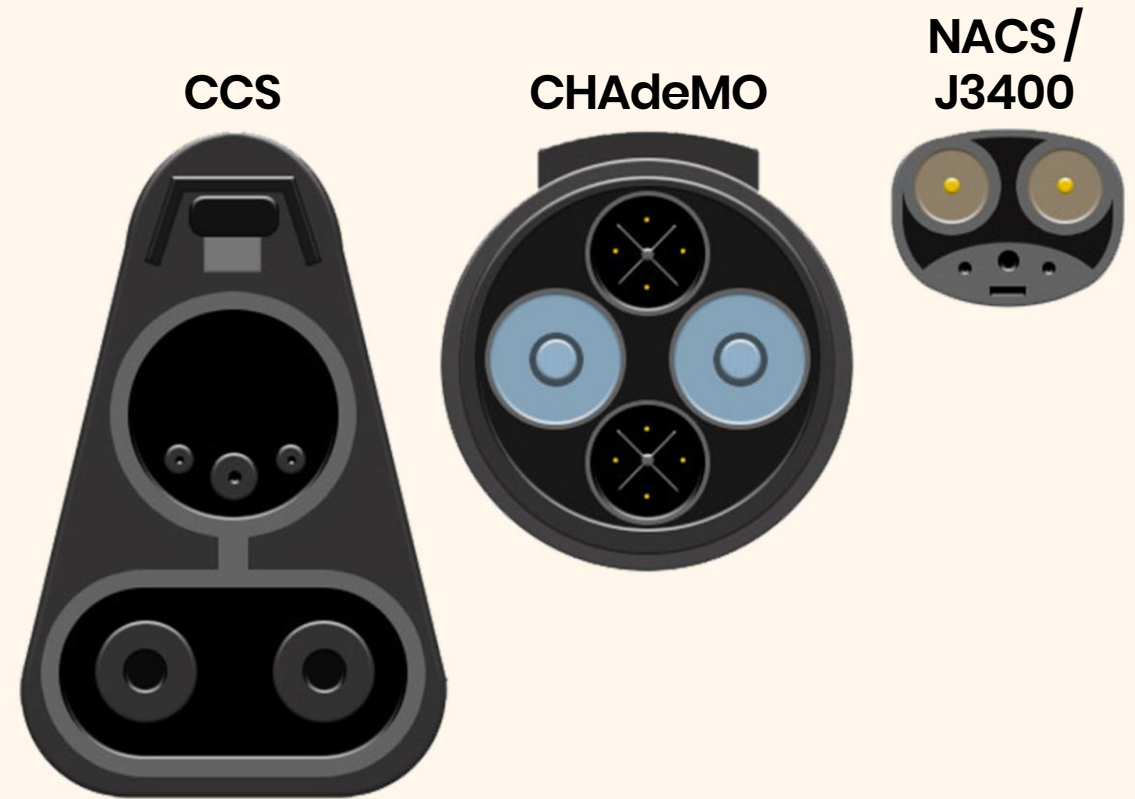
# Public Charging Pricing & Payment Options

- Pricing is set by host location - usually around \$0.25/kWh or \$1/hour for level 2 charging
- Fast charging is more expensive \$0.40-\$0.60/kWh - about \$25 per session
- Roaming agreements between charging providers can streamline access
- Payment options listed below not available at every location - **sign up with charging networks before a trip!**
- Plug & Charge may streamline access and payments in the future (Tesla already offers this)



# NACS (Tesla) Charging Port Transition

- Ford announced switch from CCS to North American Charging Standard (NACS), aka SAE J3400, in May 2023
- All other major automakers have followed
- Adapters available or coming soon for many existing vehicles
- Uncertain future for Nissan Leaf EVs with CHAdeMO
- New non-Tesla EVs with NACS are starting to ship (e.g. 2025 Hyundai Ioniq 5)



<https://www.tesla.com/support/charging/supercharging-other-evs>



# Tesla Supercharger Map

The image shows a screenshot of the Tesla "Find Us" Supercharger Map interface. On the left, there is a sidebar with the following sections:

- Find Us**: Includes a search bar labeled "Enter Location".
- Stores and Galleries**: Includes checkboxes for "Stores" and "Delivery Centers".
- Demo Drive**: Includes checkboxes for "In Store" and "Self-Serve".
- Superchargers**: This section is highlighted in yellow. It includes a "Vehicle Type:" dropdown menu with three options: "Tesla" (checked), "NACS Partner" (checked), and "Other EV" (checked). Below this are checkboxes for "Superchargers Coming Soon".
- Destination Chargers**: Includes a "Vehicle Type:" dropdown menu with "Tesla" and "Other EV" options.
- Service & Collision**: Includes a checkbox.
- A "Clear" button is located at the bottom of the sidebar.

The main map area displays a map of the Northeast United States, including parts of New York, Vermont, New Hampshire, and Massachusetts. Numerous red lightning bolt icons represent Supercharger locations. A white box with the text "Tesla Only" and a red arrow points to a Supercharger icon near the Syracuse, NY area. A blue arrow points from the "Tesla" checkbox in the sidebar to the same Supercharger icon. A green arrow points from the "NACS Partner" checkbox to a Supercharger icon near Albany, NY. The map also shows major cities like Boston, Worcester, Springfield, Hartford, and New Haven.

Tesla "Find Us" Supercharger Map



# EV Trip Planning – NYC examples

## Tips

Check PlugShare before relying on charger

Don't fast charge past 80% if others are waiting

Filtered to show 150kW+ DCFC

<https://www.plugshare.com/trip-planner.html>

6 h 50 min (307 mi)  
5 h 50 min ⚡ 50 min - 2 charges

Yestermorrow Design Build School, 7865 Main St, Waitsfield, VT 05673-...  
11:54 AM  
100%

2 h 30 min (128 mi) ⚡ 5 mph ☀️ 36.6 °F

Malta, NY [Tesla]  
★★★★★ 4.6(9) ⚡ ⚡  
8 37% → 68% (⚡ 20 min) ⚡ 7/8

1 h 55 min (108 mi) ⚡ 6 mph ☀️ 43.3 °F

Lagrangeville, NY [Tesla]  
★★★★★ 3.8(4) ⚡ ⚡  
8 14% → 65% (⚡ 29 min) ⚡ 9/12

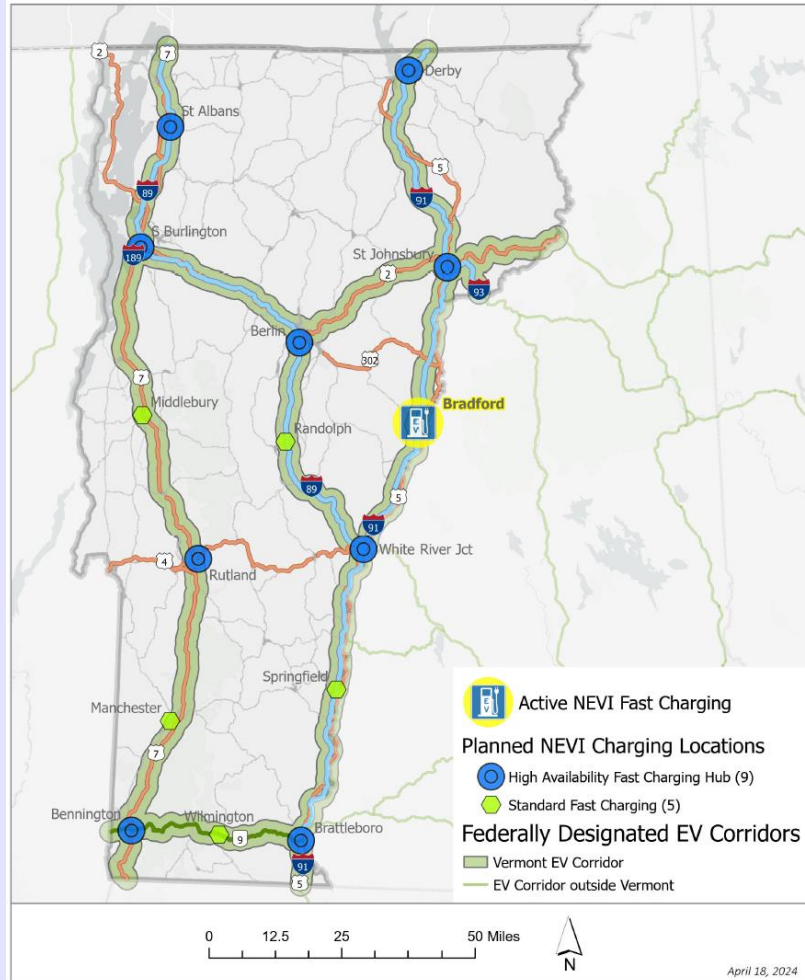
1 h 25 min (72 mi) ⚡ 3 mph ☀️ 41.8 °F

Cooper Hewitt, 2 E 91st St, New York, NY 10128-0606, United States  
6:44 PM  
31%

Restart Drive

<https://abetterrouteplanner.com/>

## Vermont NEVI Priority Areas



## Future State-Funded Charging

- Vermont has federally designated alternative fuel corridors covering all interstates plus US 7, VT 9 and part of US 2
- Federal infrastructure bill provided about \$20 million to VT for more fast charging along these corridors
- Four 150kW DCFC every 50 miles along corridors
- Upgraded Bradford location among the first National Electric Vehicle Infrastructure (NEVI) funded locations in the country
- Federal government recently issued new state guidance and Vermont is working to draw down these funds as quickly as possible
- Additional public and private investments continue expanding availability

# EV Incentives Overview

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## 1. Federal Tax Credit

- a. Some new EVs eligible for up to \$7,500; Used is 30% up to \$4,000 for EVs \$25k or less
- b. Customers claim on income taxes (unless leasing); Dealer pass-through as of 1/1/2024
- c. Does not carry-over into future years; additional income eligibility requirements apply

**d. ENDING ON SEPTEMBER 30, 2025**

## 2. State of Vermont

- a. New EV incentives for income-eligible Vermonters up to \$5,000
- b. Used EV incentives for pre-approved income-eligible Vermonters, up to \$5,000 through MileageSmart
- c. Replace Your Ride incentives for income-eligible Vermonters - up to \$5,000 for old cars
- d. Electrify Your Fleet business EV incentives, up to \$5,000
- e. e-Bike Incentive program, up to \$800 (waitlist available)

State consumer EV incentive programs ended in 2024. No additional funds appropriated through July 2026.

## 3. Electric Utility Incentives

- a. Vary depending on the utility – up to \$3,200
- b. Burlington Electric, Green Mountain Power, and VPPSA offer dealer point-of-sale options



# EV Leasing and Affordability

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- Many new EV leases are surprisingly affordable – frequently less than comparable gasoline vehicles
- Automaker leasing companies can bundle a \$7,500 federal tax credit as lease incentive
  - Automaker discounts for customer loyalty, “conquest” from other brands, and other discounts may further reduce costs
  - Costco discounts for GM and Volvo currently
- VT electric utility incentives can help cover lease down payments
- Deals change monthly
  - Tariff impacts to EV pricing are uncertain

## August 2025 Automaker EV Sample Lease Deals

- Honda Prologue - \$159/month; \$1,099 due
- Hyundai Ioniq 5 - \$189/month; \$3,999 due
- Nissan Ariya - \$229/month; \$4,959 due
- Subaru Solterra - \$279/month; \$279 due
- Volkswagen ID.4 AWD - \$129/month; \$2,499 due

*Options, taxes, and fees not included in above deals*



[From \\$129 a month: 5 of the best EV lease deals in August | Electrek](#)

[Here are the EVs you can lease for under \\$300 a month in August](#)

# EV Purchase Incentive Stacking

	<b>New 2025 Chevrolet Equinox EV</b> 319 Mile Range	<b>Used 2020 Chevrolet Bolt EV</b> 259 Mile Range
Purchase Price	\$33,600	\$12,545
<i>Federal Tax Credit</i>	\$7,500	\$3,764
<i>GMP EV Incentive</i>	\$2,200 - 3,200	\$1,500 - 2,500
Price after Incentives	\$23,900 - 22,900	\$7,281 - 6,281



# Upcoming EV Events

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## Montpelier EV Petting Zoo

Saturday, 8/30, 10:00am-12:00pm; 136 State St Parking Lot

## Upper Valley EV Expo

Saturday, 9/6, 11:00am-4:00pm; Hartford Town Hall

## Bethel Forward Fest

Saturday, 9/20, 10:00am - 2:00pm; Town Hall parking lot

## Montpelier EV Event

Wednesday, 9/24, 12:00pm - 3:00pm; 136 State St Parking Lot

## South Burlington Energy Festival

Saturday, 9/27, 11:00am - 3:00pm; South Burlington City Hall

## Williston Energy Fair

Saturday, 10/4, 1:00pm - 4:00pm; Maple Tree Place, Williston



<https://driveelectricmonth.org/attend>



## Discussion

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**veic**

Learn more online at  
[www.DriveElectricVT.com](http://www.DriveElectricVT.com)