
Mileage-based User Fee for EVs

HOUSE WAYS AND MEANS COMMITTEE, FEBRUARY 24, 2023

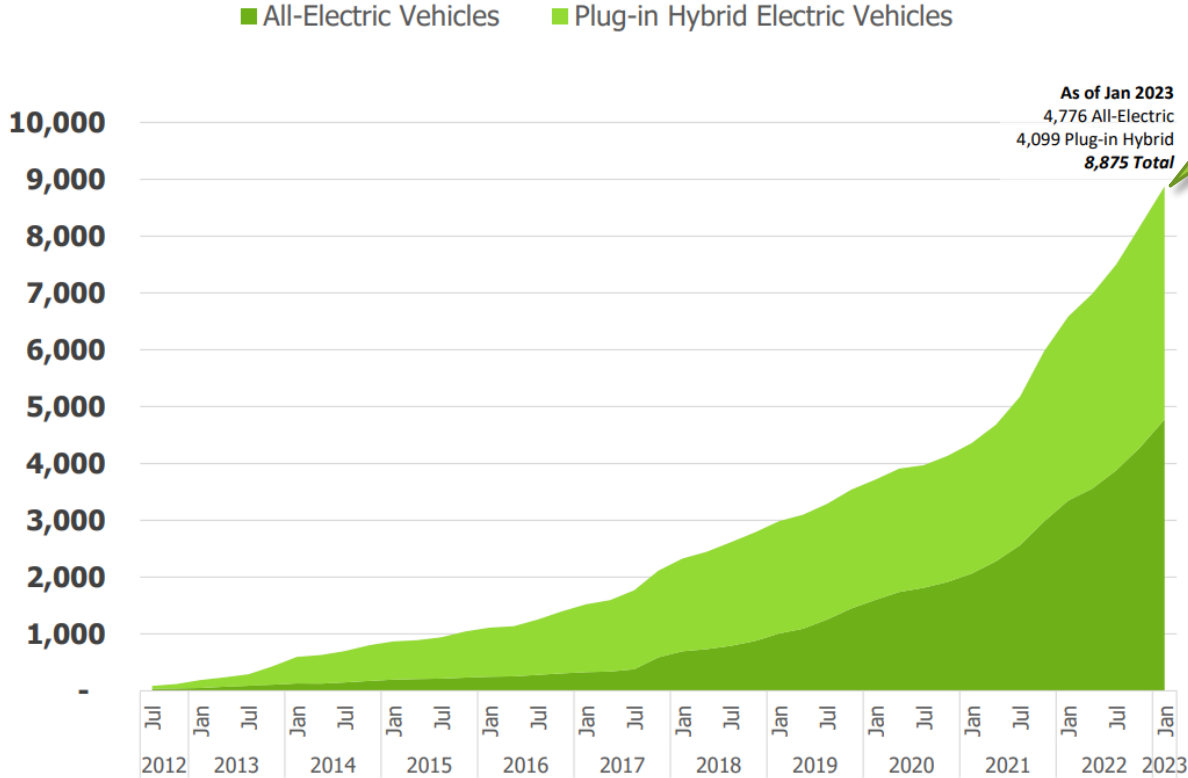
MICHAEL SMITH, DEPUTY COMMISSIONER, DEPARTMENT OF MOTOR VEHICLES, AOT

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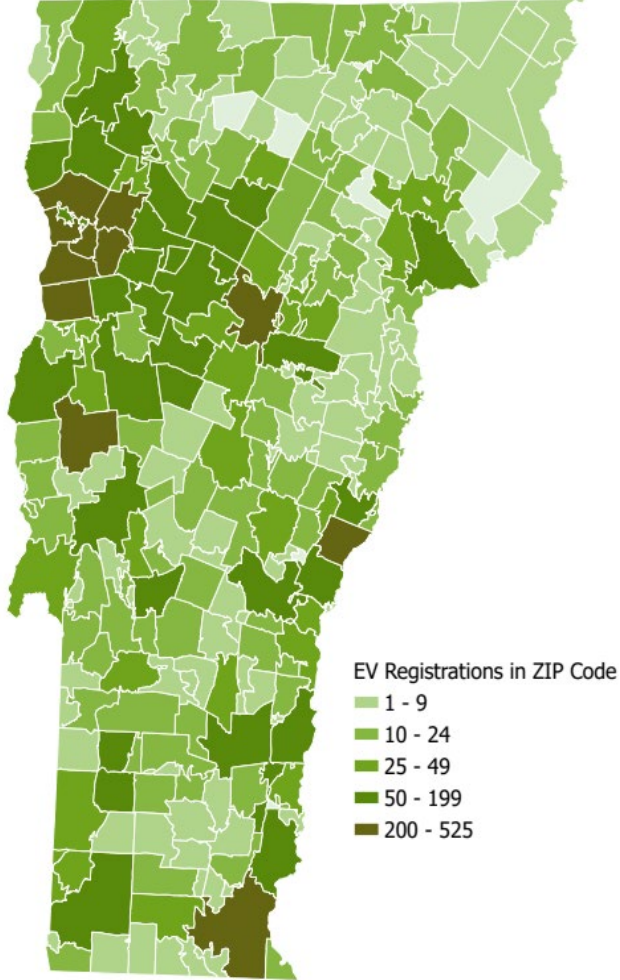
PATRICK Ó. MURPHY, SUSTAINABILITY + INNOVATIONS PROJECT MANAGER, AOT

EV Adoption in Vermont

Vermont Electric Vehicle Registrations

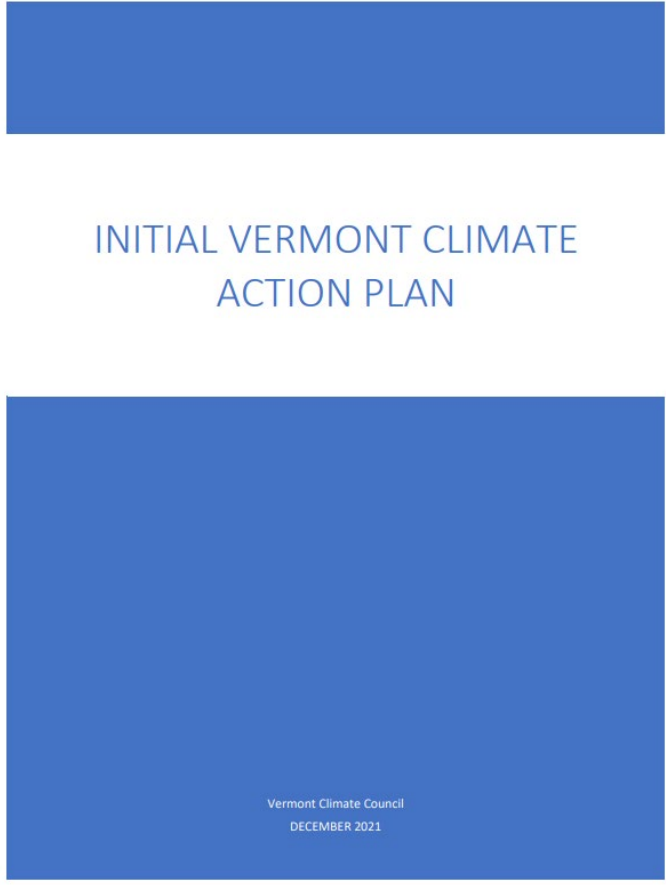
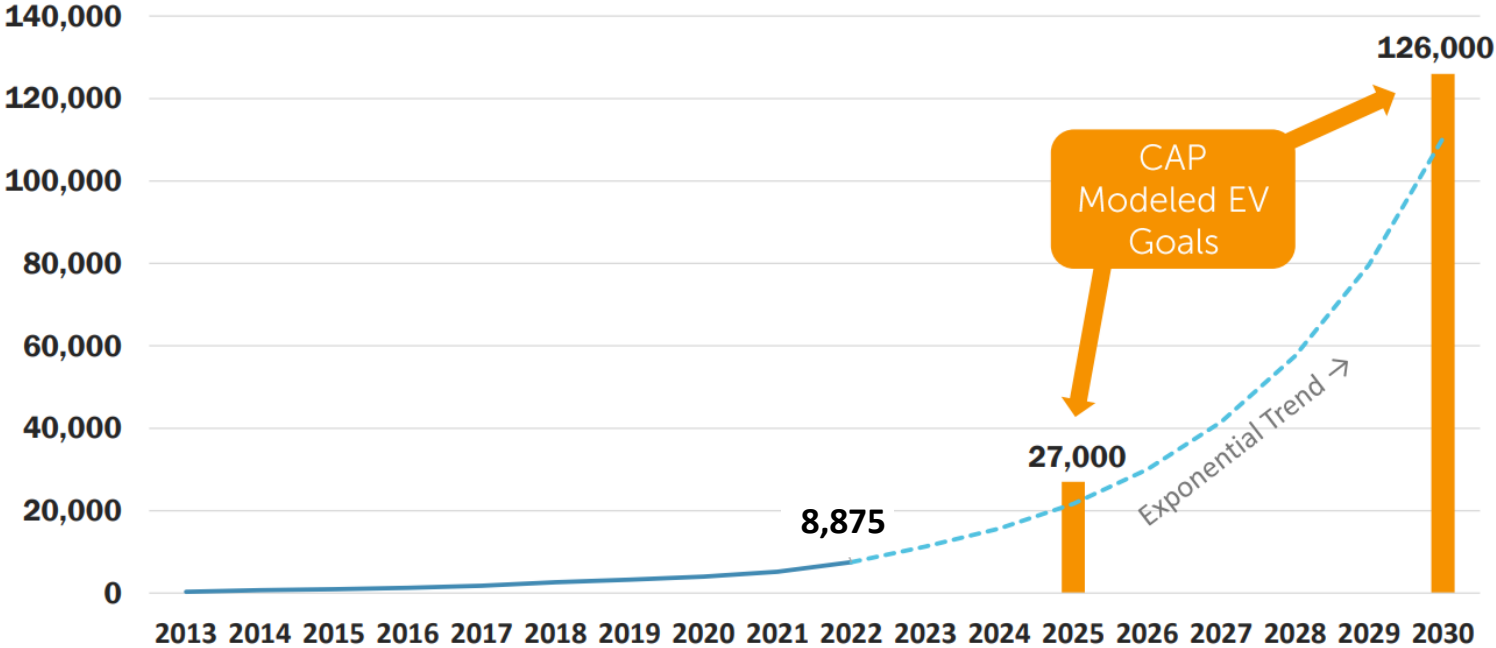


8,875 ZEVs:
 4,099 PHEVs
 4,776 AEVs



EV Adoption in Vermont

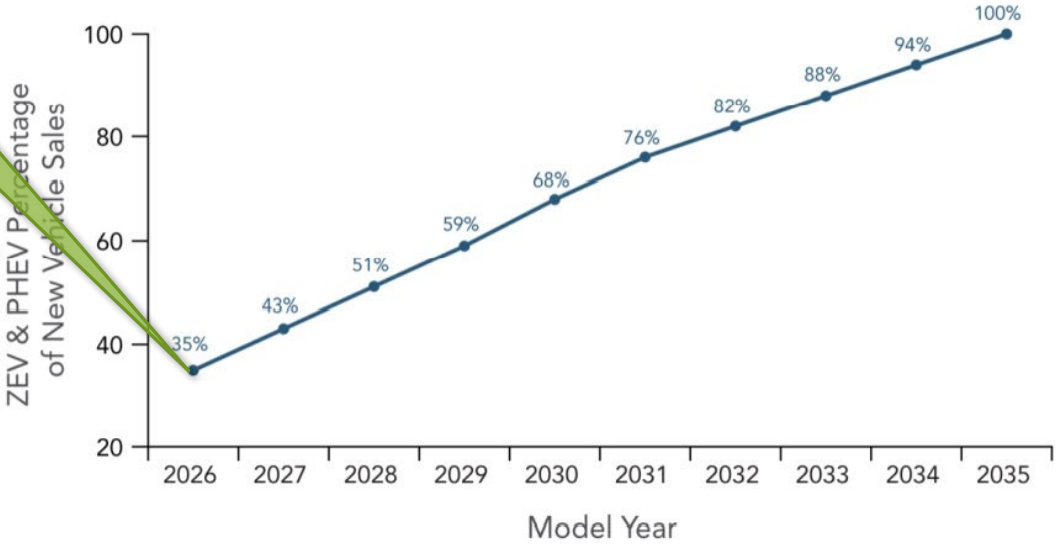
How many vehicles does Vermont need to electrify?



EV Adoption in Vermont

Vermont's Low and Zero Vehicle Regulation

The new regulation accelerates requirements that automakers deliver an increasing number of zero-emission light-duty vehicles each year beginning in model year 2026. Sales of new ZEVs and PHEVs will start with 35% that year, build to 68% in 2030, and reach 100% in 2035.

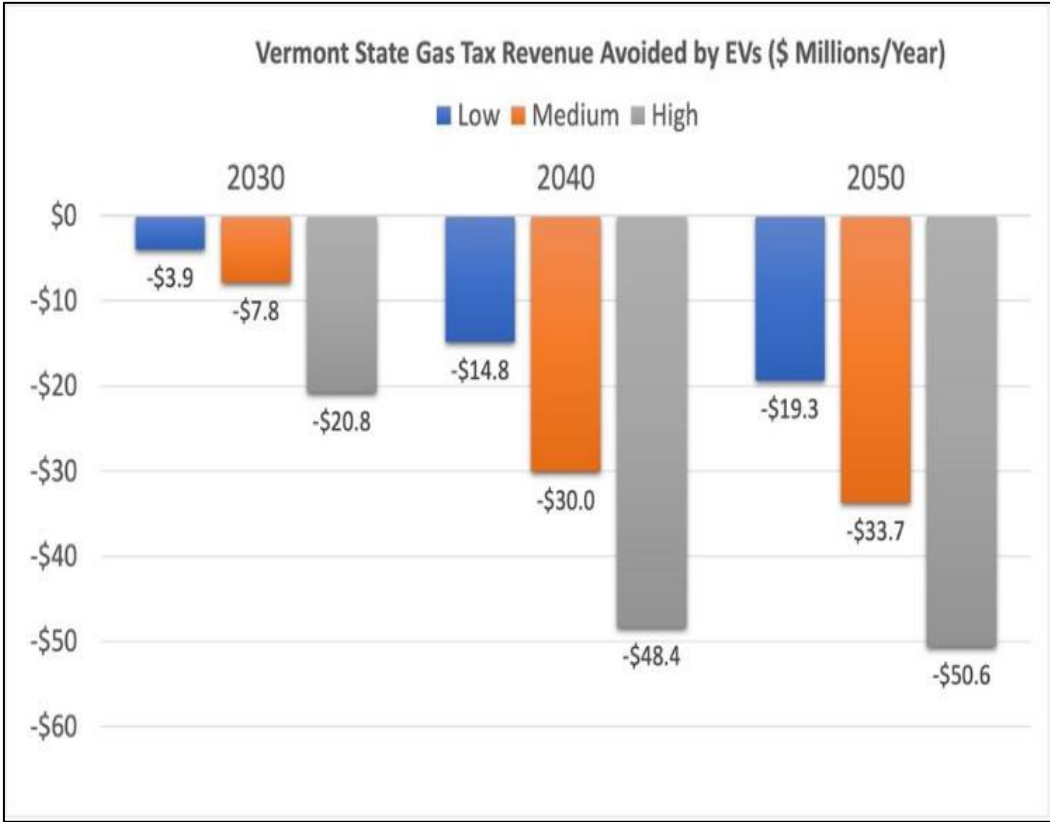
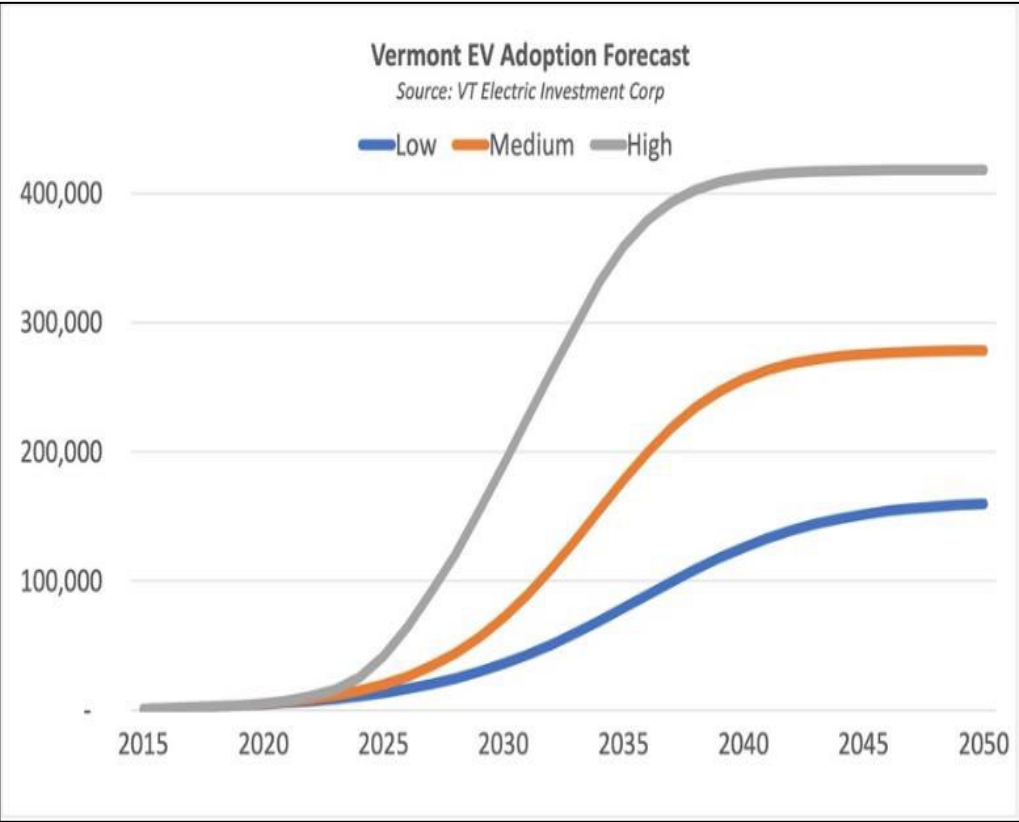


35% of new vehicle sales by 2026

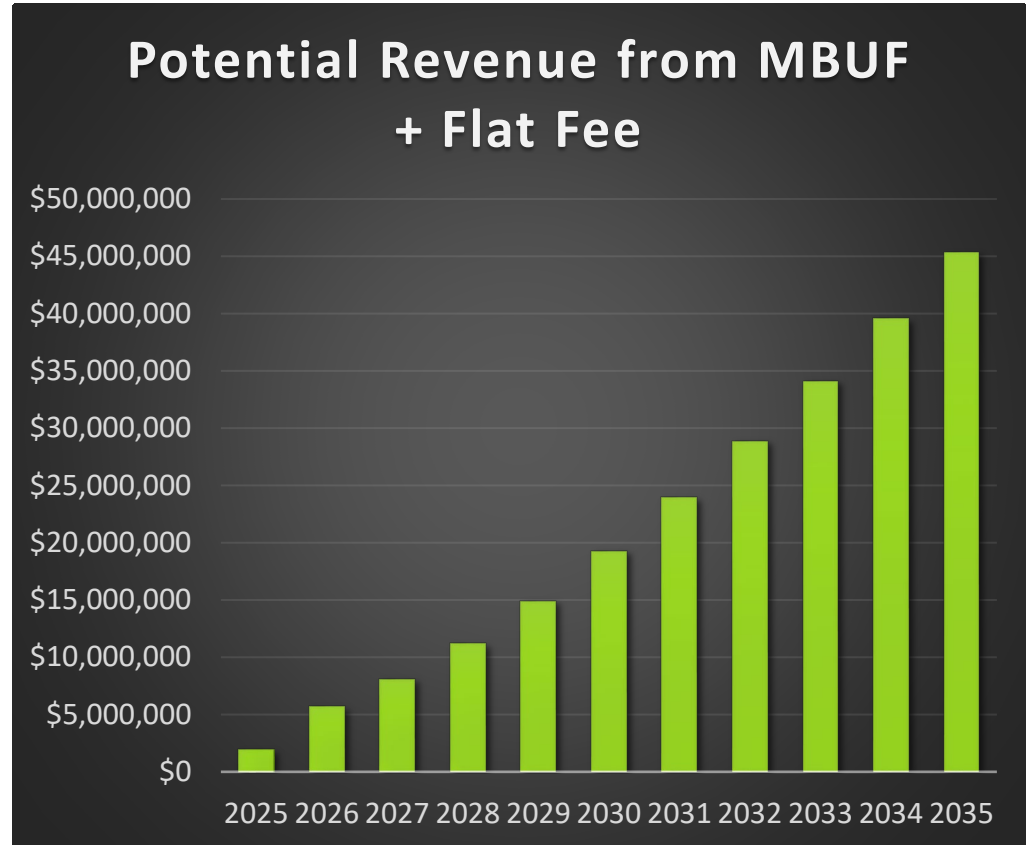
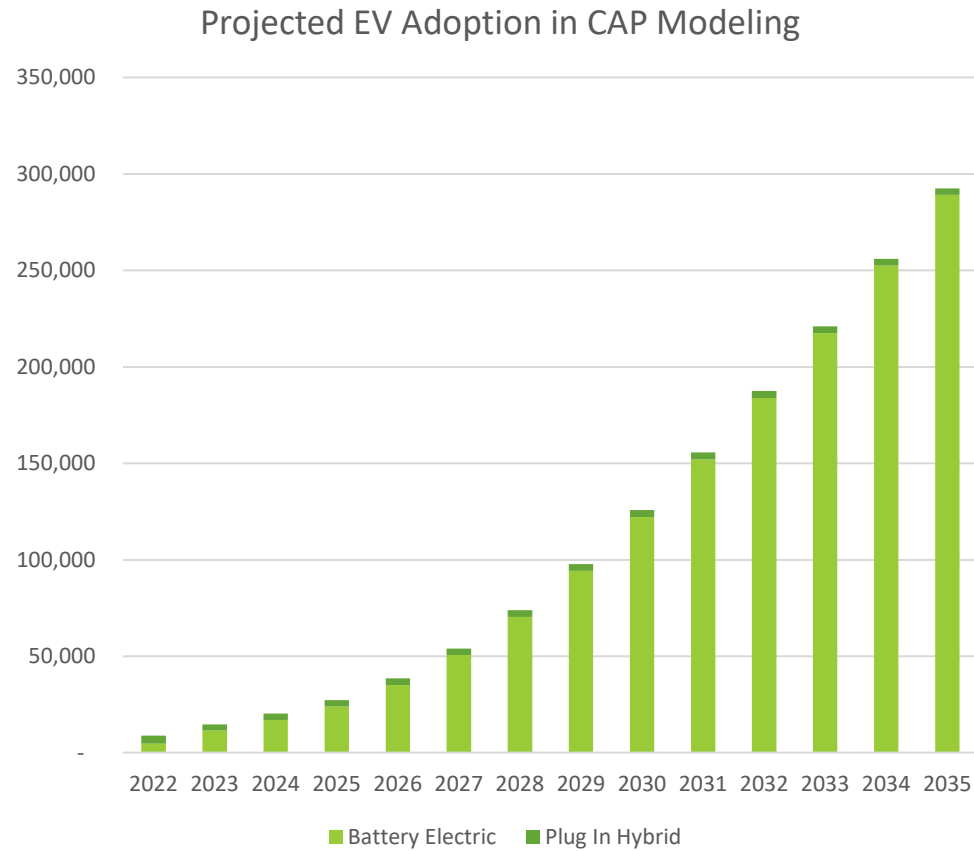
INITIAL VERMONT CLIMATE ACTION PLAN

Vermont Climate Council
DECEMBER 2021

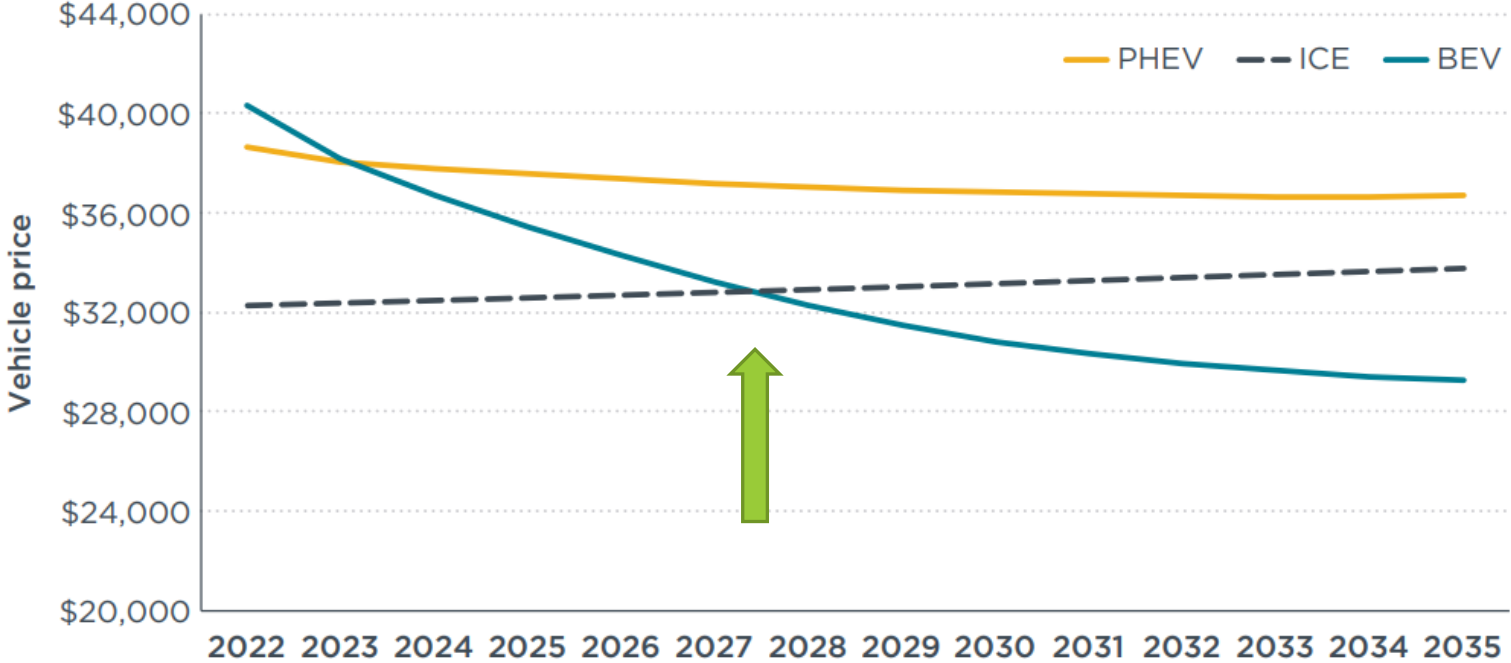
Potential Revenue Losses due to Electrification



Climate Action Plan Modeling and MBUF Projections



Projected Vehicle Price Parity

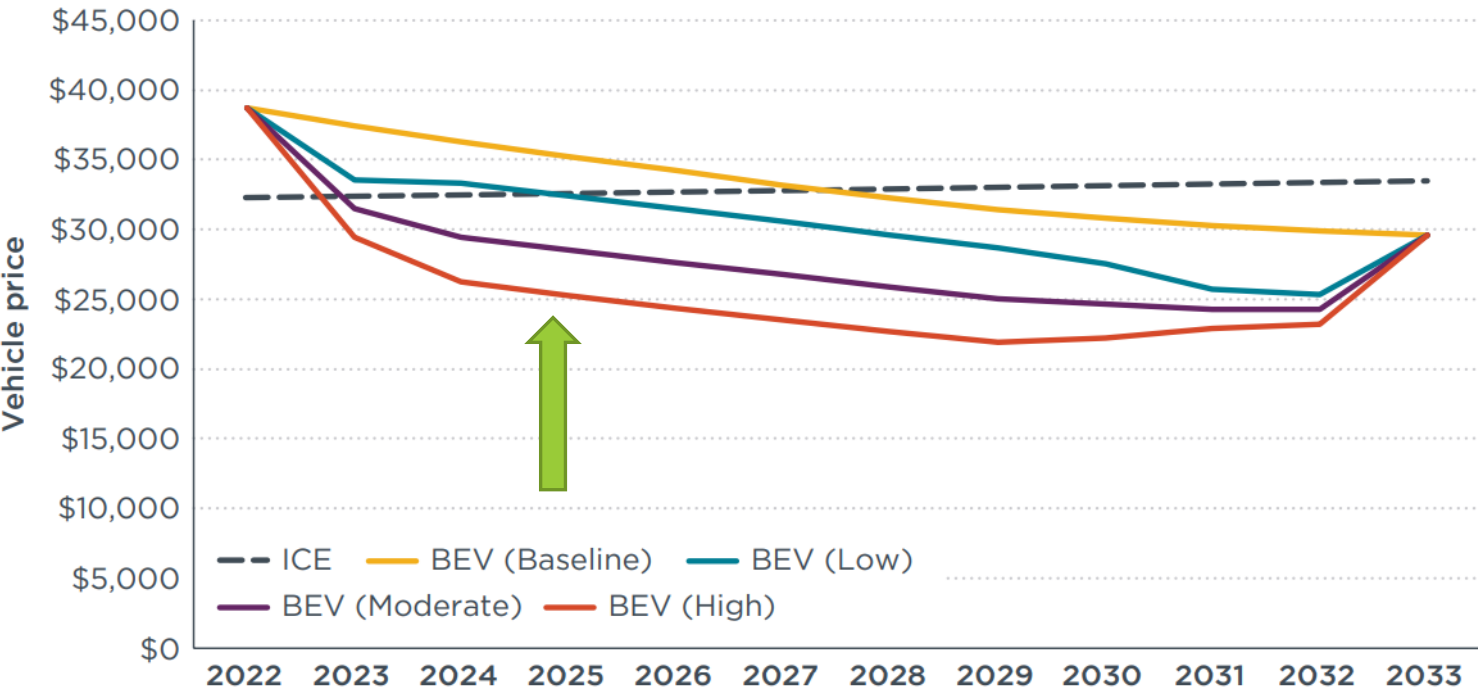


Vehicle Price Parity
2027-2028

Figure 1. Sales-weighted average conventional and electric vehicle prices applied in this analysis

Source: January 2023 [ICCT Report](#)

Projected Vehicle Price Parity with IRA



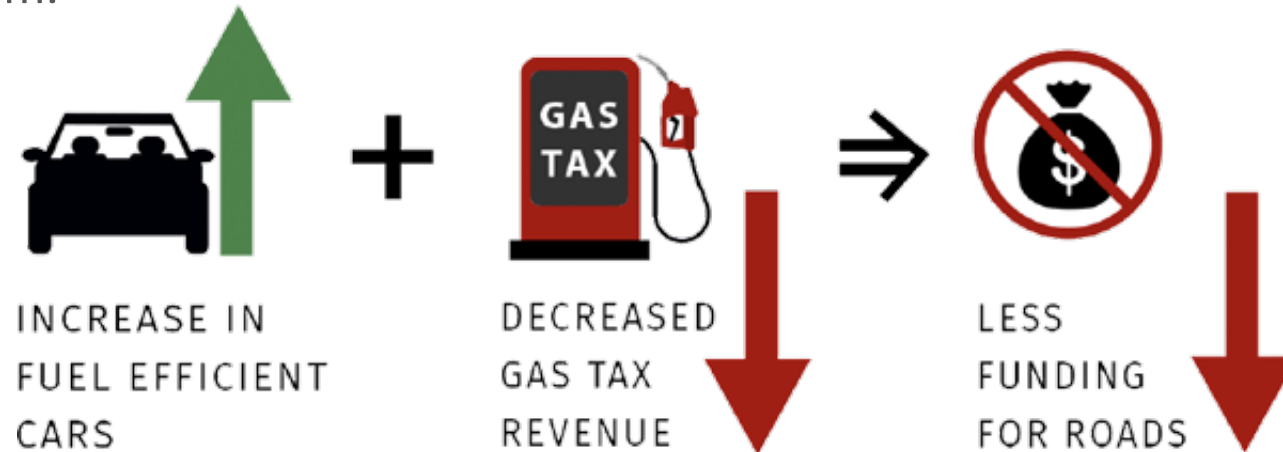
Vehicle Price Parity factoring in Inflation Reduction Act tax credits 2023-2025

Figure 4. Sales-weighted average new ICE and BEV prices with IRA incentives and tax credits applied

Source: January 2023 [ICCT Report](#)

What is a road usage charge?

A *road usage charge* is a fee on vehicle use of the public road system.



Examples:

Chicago Congestion

- A mileage-based user fee (MBUF)
- An annual flat fee
- A per kilowatt hour fee

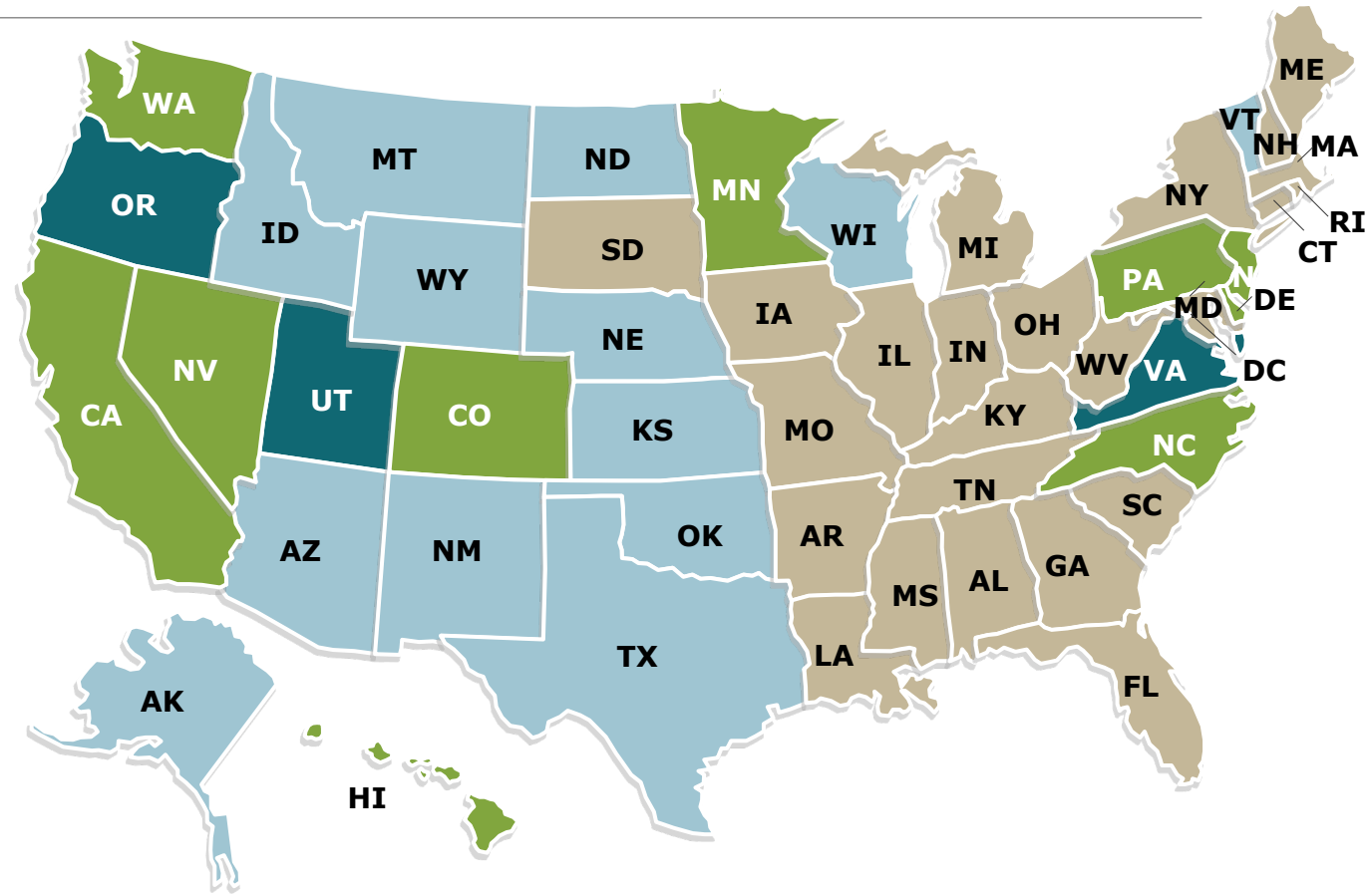
Basis of MBUF: A roadway consumption tax, with distance, stated in miles, as the measure of consumption.

An **annual flat fee** is collected at vehicle registration.

Where are mileage-based user fees happening in US?

Mileage-based user fee

- Manual reporting of odometer reading, and/or
- Automatic reporting of actual miles driven via technologies installed or embedded in vehicle.
- Payment made to government agency and/or private account manager.



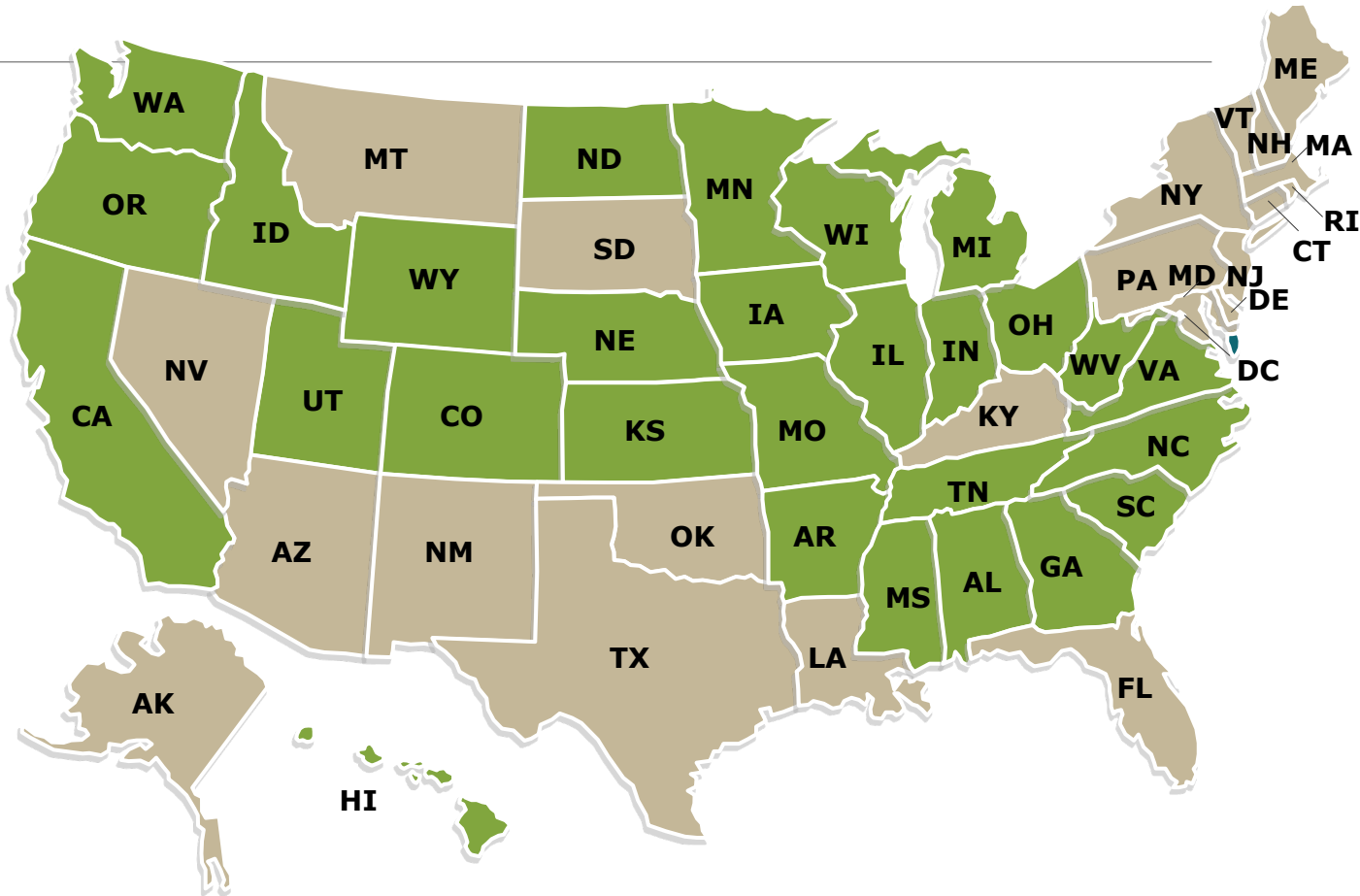
3 Enacted programs **13** Pilots/demonstrations **13** Research

Where are annual flat fees happening in US?

Annual flat fee

Billed and collected by government agency as part of vehicle registration.

Chicago Congestion



28 Enacted programs

*Per National Conference of State Legislatures 12/1/2020

Road Usage Charge Study

Road Usage Charge Advisory Committee and subcommittees convened stakeholders several times in Fall 2021 to consider impacts of a variety of policy scenarios and alignment with shared goals:

- Vermont needs to develop long-term, sustainable revenue to maintain our roads and bridges
- Future funding must be fair where all drivers contribute to the maintenance of the road network
- Any funding policy must be aligned with Vermont's Climate Action Plan



MBUF in Vermont

Road Usage Charge Study Advisory Committee recommended in its final report a mileage-based user fee for plug-in electric vehicles:

- Best opportunity to align sustainable transportation revenue and climate goals
- Cost-effectively utilizes existing inspection process with odometer reading
- Flexible payment options/frequencies
- Fairness: drivers only pay for what they use
- Avoids privacy concerns of reporting devices
- Federal money can be leveraged to assist with implementation



Proposed Language

- 1) The Agency shall design and implement a process to collect a mileage-based user fee based on the annual vehicle miles traveled by BEVs registered in the State.
- 2) It is the intent of the General Assembly that starting on July 1, 2025 PHEVs that are a pleasure car, as defined in 23 V.S.A. § 4(28), shall be subject to an annual or a biennial registration fee that is one and three-quarters times the amount of the annual or biennial fee for a pleasure car pursuant to 23 V.S.A. § 361 and the State's gas tax but shall not be subject to a mileage-based user fee.

MBUF + Flat fee in Vermont

Mileage-based User Fee for All-Electric Vehicles (AEVs)

- Create new fee based on annual miles traveled for AEVs as collected at the annual vehicle inspection, with rate to approximate equivalent gas tax (**\$0.013/mile --\$150/yr**)
- Vehicle owners pay on a selected frequency (monthly, annually) to a third-party account manager
- DMV to ensure compliance with MBUF program through existing policies and practices

Flat Fee for Plug-in Hybrids (PHEVs):

- Use existing “other specialized fuels” language for 1.75 x registration fee for PHEVs
- 1.75 X \$76 annual registration fee (**\$57 additional fee** vs. \$72 estimated in report)

RUC Study Advisory Committee Survey

What is your initial reaction to introducing mileage-based user fees for fully electric, plug-in hybrid electric, or other highly fuel-efficient Vermont registered vehicles?	Percent	Count
Very Supportive	30%	116
Somewhat Supportive	30%	116
Somewhat Opposed	15%	58
Very Opposed	22%	85
No Opinion	2%	9
Total	100%	384

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RUC Study Advisory Committee Survey

Table 6. EV Purchase Likelihood with Road Usage Fees

If mileage-based fees or flat fees are implemented in the state of Vermont for electric vehicles and highly efficient fuel vehicles, how likely are you to purchase an electric vehicle in the next few years?	Percent	Count
More likely	6%	8
About the same	78%	109
Less likely	16%	22
Total	100%	139

Mileage-based User Fee vs. Cost of Ownership

Estimated annual savings

The annual cost comparison shown below is based on the above cost and efficiency information combined with estimated annual vehicle use of 12,000 miles per year.

Gasoline Vehicle: \$1,795 a year



Electric Vehicle: \$830 a year



EV savings over 5 years

Savings add up! The following cost and savings estimates are based on the information provided above multiplied over 5 years. Think of all the things you could do with potential savings like this!

Gasoline Vehicle: \$8,975 over 5 years



Electric Vehicle: \$4,148 over 5 years



\$965

Switch to electric and save big on fuel. Estimated annual savings.

\$4,827

Switch to an EV and your 5 year savings could look like this.

Estimated Annual MBUF payment

\$156

(\$97)

federal taxes avoided

Fees designed to achieve parity with *state* gas tax for fossil-fueled vehicles –i.e. no net-costs or savings

\$780

(\$485)

federal taxes avoided

The Road Ahead

The MBUF Assessment is evaluating how Vermont can build a cost-effective system. AOT is considering:

- Implementation and long-term operational/staffing costs
- System design and processes
- Rate-setting, rulemaking elements
- Transition timeline
- Federal grant application to US DOT
((\$3.5 million request with 80/20 cost share))



Project & Federal Grant Timeline



*USDOT announcement of Federal SIRC grantees varies from cycle to cycle. January 2024 may be an optimistic date

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