ALTERNATIVES TO A FUEL TAX (PERSONAL VEHICLES)

House Committee on Ways & Means
January 20, 2021
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OVERVIEW

- What is a Plug-In Electric Vehicle?
- Key Characteristics of a Fuel Tax
- Alternatives
- Approaches from Other States
- Vermont Specific Recommendations
- Bills from 2019–2020 Biennium

WHAT IS A PLUG-IN ELECTRIC VEHICLE?

Title 23 : Motor Vehicles

Chapter 001 : General Provisions

(Cite as: 23 V.S.A. § 4)

§ 4. Definitions

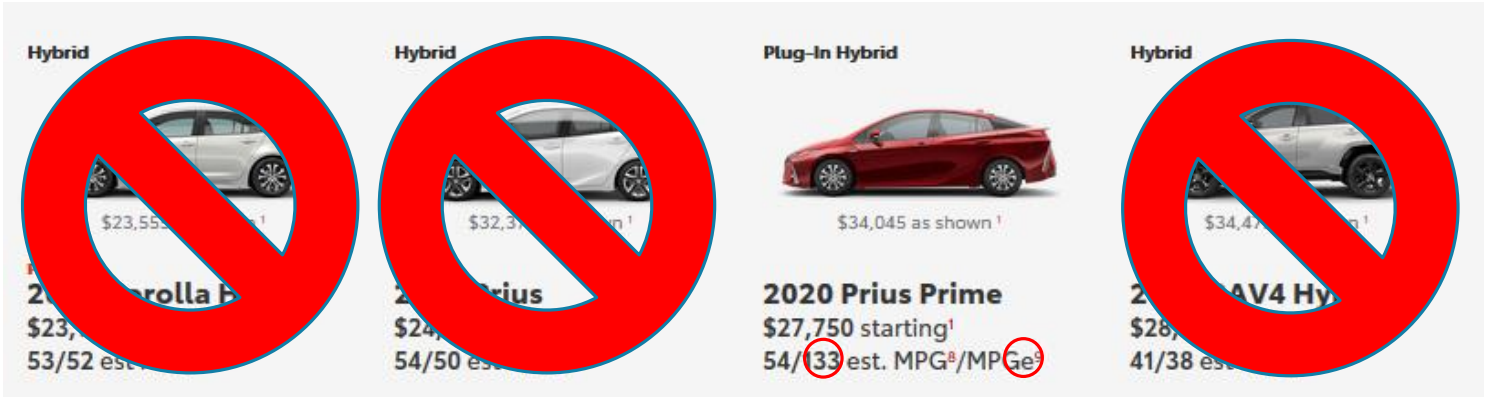
Except as may otherwise be provided by law, and unless the context otherwise requires in statutes relating to motor vehicles and enforcement of the law regulating vehicles, as provided in this title and 20 V.S.A. part 5, the following definitions shall apply:

(85) "Plug-in electric vehicle" means a motor vehicle that can be powered by an electric motor drawing current from a rechargeable energy storage system, such as from storage batteries or other portable electrical energy storage devices, provided that the vehicle can draw recharge energy from a source off the vehicle such as electric vehicle supply equipment. A "plug-in electric vehicle" includes both a "battery electric vehicle" and a "plug-in hybrid electric vehicle" where:

(A) "battery electric vehicle" means a motor vehicle that can only be powered by an electric motor drawing current from a rechargeable energy storage system; and

(B) "plug-in hybrid electric vehicle" means a motor vehicle that can be powered by an electric motor drawing current from a rechargeable energy storage system but also has an onboard combustion engine.

WHAT IS A PLUG-IN ELECTRIC VEHICLE? (cont.)



VOLT

STARTING AT $33,520

As shown $38,120

BOLT EV

STARTING AT $36,620

As shown $42,875

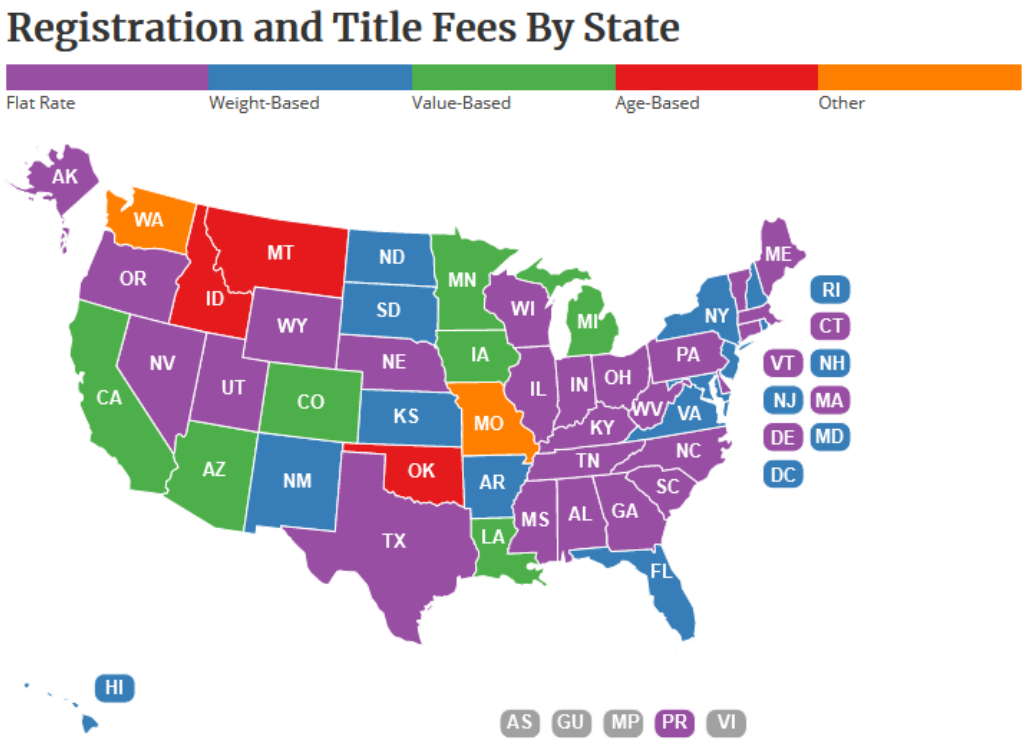
KEY CHARACTERISTICS OF A FUEL TAX

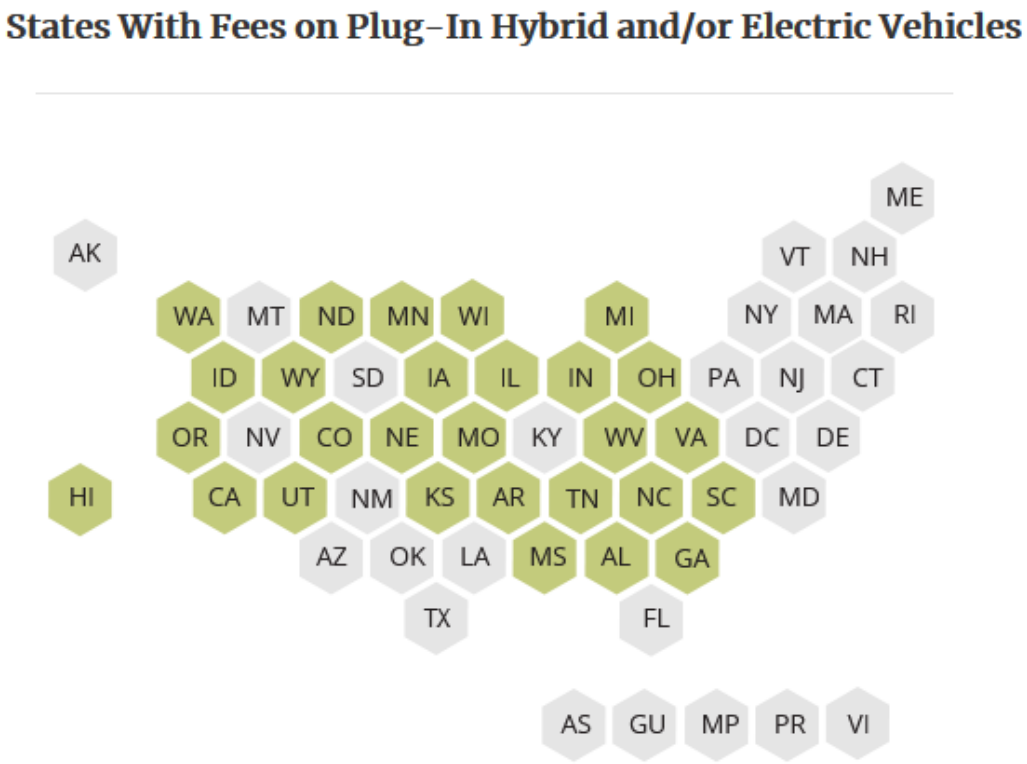
- **Based on road usage**
  - Linked to miles driven
    (although vehicle efficiency/weight is a factor)
- **Based on location**
  - Linked to where gas is purchased
    (although motor vehicles are highly mobile)
- **Paid over time**
- **The "norm"**

ALTERNATIVES

1. **Registration Fees**
   - Timing (annual, quarterly, etc.)
   - Tiered (BEV v. PHEV v. hybrid)
2. **Vehicle Miles Traveled (VMT) Tax**
   - Also known as a VMT tax, VMT fee, mileage-based fee, or road user charge
   - Timing (annually, quarterly, monthly, etc.)
   - Tiered (BEV v. PHEV v. hybrid)
   - Location (where miles traveled)
3. **Per-kilowatt hour (kWh) Fee**
   - Location (where miles traveled and where vehicle charged)
   - Logistics
4. **Combination (aka "hybrid model")**

APPROACHES FROM OTHER STATES
REGISTRATION FEES (personal vehicles)

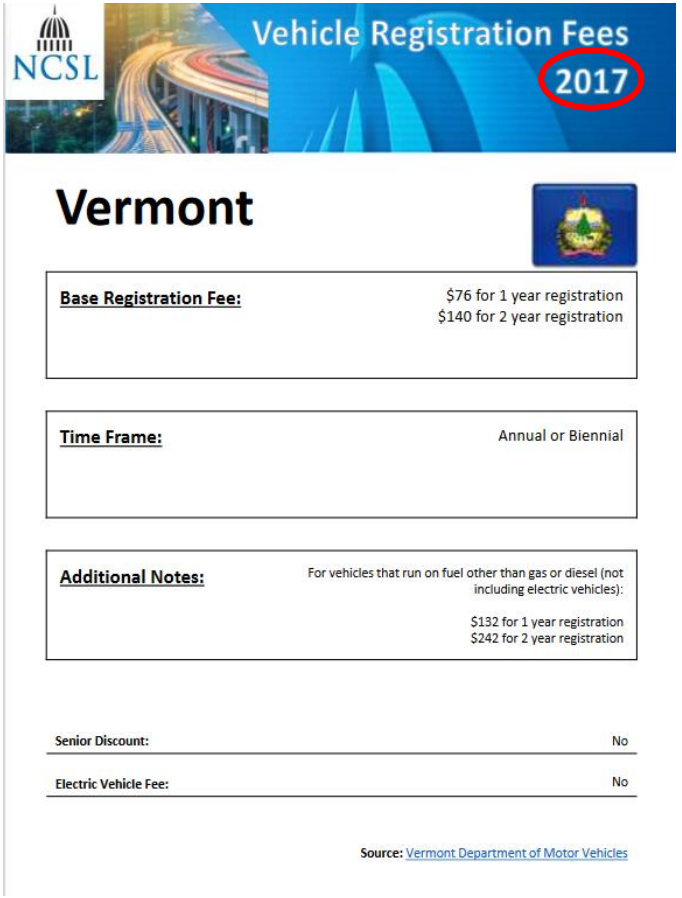




Source: Vehicle Registration Fees By State (NCSL) (Feb. 2020)

Source: Special Fees on PEVS (NCSL) (Dec. 2020)

APPROACHES FROM OTHER STATES **REGISTRATION FEES** (cont.)



- **Vermont**: $76 annual/$140 biennial registration fee; **discounted to** $74 annually/$136 biennially for a PEV because the annual emission fee is not applicable. Vermont DMV; 23 V.S.A. § 361; 3 V.S.A. § 2822(m); 23 V.S.A. chapter 7, subchapter 2 for other vehicle type registration fees.

- **West Virginia**: $50 annual registration fee; **increased by** $100 annually for PHEV (electricity and fuel); **increased by** $200 annually for BEV (exclusively electricity). West Virginia DMV; W. Va. Code. §§ 17A-10-3 and 17A-10-3C

APPROACHES FROM OTHER STATES **REGISTRATION FEES** (cont.)

- **Illinois**: $151 annual registration fee; **increased by** $100 annually for BEV (propelled by an electric engine) "in lieu of the payment of motor fuel taxes." However, the annual registration fee for a BEV was **discounted to** a $35 biennial registration fee until January 1, 2020. Illinois SoS; 625 Ill. Comp. Stat. 5/3-805 and 3-806.

- **District of Columbia**: Tiered based on weight ($72 if ≤ 3,499 lbs; $115 if between 3,500 lbs and 4,999 lbs; and $155 if ≥ 5,000 lbs); **discounted to** $36 for the first new registration if vehicle efficiency is ≥ 40 mpg. DC DMV; D.C. Code § 50-1501.03(b)(1).

- **Michigan**: Annual registration fee based on MSRP; **increased** annually based on weight and vehicle type (BEV v. PHEV) and linked to gas tax (amount over 19 cents per gallon). Mich. Comp. Laws § 257.801.
  - Note: This approach has been criticized (Paying Their Fare Share, Ecology Center (Nov. 2019)).

APPROACHES FROM OTHER STATES
VEHICLE MILES TRAVELED (VMT)

Utah's Road Usage Charge Program (Utah Code Ann. § 72-1-213.1; FAQ)

- Owners of certain vehicles (includes PEVs and hybrids) may pay 1.5 cents per mile traveled—but the total amount owed is capped at the increased vehicle registration fees for these vehicles ($20 (hybrid); $52 (PHEV); and $120 (BEV) in 2021).
- Billed on a monthly basis.
- Currently there is no exemption for miles driven outside of Utah, mileage is tracked through global positioning (GPS)/on board diagnostic (OBD) technology and annual odometer pictures, and personal data is supposed to be protected.
- Written plan on how to enroll all vehicles registered in the state by December 31, 2031 due to the Legislative Management Committee on or before June 1, 2021.

APPROACHES FROM OTHER STATES
VEHICLE MILES TRAVELED (VMT) (cont.)

OReGO (Or. Rev. Stat. §§ 319.883–319.947; website)

- Owners of certain vehicles (includes PEVs) may pay 1.8 cents per mile traveled instead of increased registration fees ($66 (40+ mpg); and $220 (BEV) for two years in 2021).
- Billed on a quarterly basis or pay as you go.
- Exemption for miles driven outside of Oregon if a GPS option is used, mileage is tracked through OBD technology, fuel tax is credited back to the participant, and personal data is supposed to be protected.
- The Road User Task Force will be making a recommendation to the Oregon Legislature on how to expand the state's road user charge program to apply to certain (high efficiency) vehicles model year 2021 or later. Opt-out annual fee recommendation was $400 in the November 18, 2020 draft (available here).

APPROACHES FROM OTHER STATES **PER KILOWATT HOUR (kWh)**

- Thus far, it does not appear that any states have implemented a tax or fee assessed at the charging level (on the kilowatt hour (kWh)).
- Pennsylvania has an Alternative Fuels Tax that applies to electricity, but it relies on self-reporting. PA Department of Revenue.
- Will Vermont be the first?

APPROACHES FROM OTHER STATES
PER KILOWATT HOUR (kWh) (cont.)

BILL AS INTRODUCED H.942
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* * * PEV Contributions to the Transportation Fund Pilot Program * * *

Sec. 13. PEV PILOT PROGRAM DESIGN FOR PEV CONTRIBUTIONS TO THE TRANSPORTATION FUND; REPORT

(a) The Agency, in consultation with the Departments of Environmental Conservation and of Public Service and the State's electric distribution utilities, shall design a pilot program to collect a per-kilowatt hour (kWh) fee from PEV operators at EVSE, without regard to whether the EVSE is available to the public, parallel to and independent of the current framework of the gasoline and diesel taxes established under 23 V.S.A. chapters 27 and 28.

(b) The Agency shall file a report with the House Committees on Energy and Technology, on Transportation, and on Ways and Means and Senate Committees on Natural Resources and Energy, on Finance, and on Transportation on or before November 15, 2021 detailing the elements of the pilot program including: a recommendation on the amount of the per-kWh fee and how the amount was determined; how the fee should be collected and transmitted to the Transportation Fund; how rate design or other means can be used to prevent PEV or EVSE operators from avoiding the fee; the role of the State's electric distribution utilities in the pilot program; a schedule for pilot program implementation; the availability of federal funding to support the pilot program; proposed legislation necessary to support the pilot program; how pilot program elements may differ between EVSE available to the public and EVSE not available to the public; how pilot program elements may differ between EVSE that is separately metered and EVSE that is not separately metered; the anticipated costs to electric distribution utilities to administer the pilot program and to PEV and EVSE operators to participate in the pilot program; and how to overcome any challenges to a per-kWh fee identified by the Public Utility Commission in the reports filed as required by 2018 Acts and Resolves No. 158, Sec. 25 and 2019 Acts and Resolves No. 59, Sec. 35.

(c) The Agency is authorized to retain one or more contractors to assist with preparing the report required under subsection (b) of this section.

VERMONT SPECIFIC RECOMMENDATIONS

Sec. 15 2016 Plug-In Hybrid and Electric Vehicle Registration Fees, pp. 3 and 4 (Dec. 2016)

The report's final recommendations concur with the two previous legislative reports. EV registration fees should not be increased in the immediate future and not until the market for EVs moves beyond an "early adopter" phase. To increase the fees now is at cross purposes with the state's efforts to incentivize EV purchase and use, and increase the number of EVs on Vermont's roadways. Transitioning from conventional gasoline-powered to electric vehicles is essential for meeting the state's short and long term climate and energy goals, and will also reduce the public health problems caused by air pollution, keep many more dollars in the Vermont economy, and reduce the costs of transportation for businesses and households

Recommended policy considerations include:

1. A first priority of putting a comprehensive transportation revenue solution in place as vehicle efficiency increases and people drive less due to economic pressures and opportunities, desired lifestyles, healthier transportation options, and environmental concerns. A stable revenue source that grows with the economy is needed.
2. Second, if a comprehensive transportation revenue solution is not in place that addresses losses from overall increased vehicle efficiency, a fee should go into effect when the number of registered EVs represent 15% of auto sales or approximately 18,835 new registered passenger vehicles. This is estimated to be by 2025.

NOTE: The prior legislative reports are:

- Alternative Fuel Vehicle User Fee Options (Nov. 2012); and
- A Study on Replacing Motor Vehicle Fuel Tax Revenues Not Collected from Plug-In Electric Vehicles (Dec. 2013)

VERMONT SPECIFIC RECOMMENDATIONS (cont.)

Promoting the Ownership and Use of Electric Vehicles in the State of Vermont, pp. 30-37 (Jun. 2019)

The comments and discussions presented during the Commission's investigation generally addressed three approaches to obtaining EV-user contributions to funding the state's transportation infrastructure. Consistent with previous legislative reports prepared by Vermont State agencies, these approaches included a registration fee, a vehicle-miles traveled, or "VMT" fee, and a per-kWh fee on electricity used for EV charging.[51] The VMT fee and the per-kWh fee both found support with participants. No participant supported an increased registration fee.

No consensus on the best approach to collecting EV contributions to transportation infrastructure emerged during the Commission's investigation. However, consistent with previous reports prepared by Vermont agencies, the participants agreed that no fees (or minimal fees[52]) should be imposed at this time. According to these reports and comments received in this investigation, the most significant impact on state transportation funds is the increasing efficiency of internal combustion engine vehicles and lack of inflation adjustments to the gas tax.[53]

VERMONT SPECIFIC RECOMMENDATIONS (cont.)

★ The Vermont Agencies, including the Agency of Transportation, recommended a per-kWh fee to be collected by Vermont's distribution utilities.[76] According to the Vermont Agencies, a per-kWh fee has several advantages. It would be comparable to the current gasoline tax scheme and easy for consumers to understand. It would also capture revenue from out-of-state EVs traveling in Vermont and using charging stations. The Vermont Agencies also conclude that per-kWh fees would not create an additional up-front cost barrier to EV ownership. Finally, the Vermont Agencies conclude that per-kWh fees could be combined with rate design to encourage adoption of EV-specific rates and the infrastructure necessary to ensure collection of the per kWh fee, and to ensure that the fee does not create a disincentive for EV ownership. The Vermont Agencies recommended implementing the infrastructure needed to collect a per-kWh fee now while EV adoption rates are low.[77] Along with the infrastructure, the Vermont Agencies recommend a small per-kWh fee that would be phased in over time as adoption increases, rising to the full fee amount at 15% EV penetration.[78]

The per-kWh fee recommended by the Vermont Agencies met with substantial opposition from other participants in the proceeding, particularly from the participating distribution utilities that would become responsible for implementing, collecting, and remitting the per-kWh fee recommended by the Vermont Agencies. Among the reasons for opposing the per-kWh fee were the following:

- The prematurity of fees given the early stage of EV adoption.
- The customer infrastructure required to ensure accuracy and to minimize avoidance of the tax. Accurate calculation of EV charging would require additional equipment in customer homes, whether a separate submeter or accurate charging system.
- Utility infrastructure required to update billing systems. If Vermont distribution utilities are required to collect a tax, they will need to update their billing systems to handle the data received from customer submeters or third-party chargers. The distribution utilities estimate that the upfront costs of implementing the necessary system could exceed the revenues collected pursuant to the tax.
- The potential for stranded costs resulting from prematurely committing to a particular fee approach on both utilities (billing infrastructure) and EV owners (submeters).
- Difficulty of utility enforcement for non-payment.

VERMONT SPECIFIC RECOMMENDATIONS (cont.)

Supplemental Electric Vehicle Report (Dec. 2019)

The Commission recommends that the State *not* impose any new per-kWh fees on electric vehicle charging, either for contribution to the funding of transportation infrastructure or for transportation efficiency projects. The Commission believes there are better ways for EVs to contribute to the transportation infrastructure fund. The reasons for this recommendation are set forth under the discussion of each type of potential fee, below. Each subsection contains a discussion of how such fees would be collected if the State decides to impose them. Additionally, the subsection discussing per-kWh fees for transportation infrastructure funding provides the joint position of the Vermont Agency of Transportation, the Vermont Department of Public Service, and the Vermont Agency of Natural Resources (together the "State Agencies"), which differs from the recommendation of the Commission.

Discussion of alternatives at pp. 15–18.

VERMONT SPECIFIC RECOMMENDATIONS (CONT.)

DRAFT Report of the Vermont Tax Structure Commission, p. 15 (Jan. 2021)

Every state in the nation is evaluating decreases in gasoline consumption as a threat to transportation funds. We recommend that Vermont add an annual excise tax to the registration fees for electric cars as their contribution to the Transportation Fund in lieu of paying gas taxes (8A). This tax should persist until the technology is available to charge each vehicle for the miles, or even better, the pound-miles it travels on Vermont roads. We also recommend that the Vermont Agency of Transportation and Department of Taxes track other approaches as they progress in other states to ensure that our system continues to evolve and adopt best practices.

BILLS FROM 2019–2020 BIENNIUM

- H.749 (An act relating to registration fees for plug-in electric vehicles – Would increase annual registration fee for pleasure car PEVs (so both BEVs and PHEVs) by $50.00 each year.
- H.835 (An act relating to a vehicle miles traveled tax for plug-in electric vehicles) – Taxable miles traveled would be based on the odometer reading made as part of the annual inspection required under 23 V.S.A. § 1222 and may be reduced by the Commissioner of Motor Vehicles if the owner presents evidence that the vehicle was driven outside the State. Tax would be owed at the time of filing the owner's State income tax return or through a separate filing if State income tax is not assessed. Annual rates for BEVs and PHEVs established by the Commissioners of Motor Vehicles and Taxes (process established through rulemaking).
- H.942, Sec. 13 (T. Bill) – Pilot program proposal from the Administration on a per-kWh fee to supplant the Transportation Fund, pulled out at the Administration's recommendation after the Transportation Bill was introduced on March 13, 2020 because of COVID-19. Unknown whether or not something will be proposed by the Administration again this year (should know more soon!). Language is on slide 13.