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Electric Vehicle Taxes and the Federal Highway Trust Fund

Like other vehicles, electric vehicles (EVs) may use federally funded roads. Unlike other vehicles, EVs do not consume gasoline or other fuels, and thus do not incur federal fuels taxes. To address this perceived discrepancy and the growing gap between federal highway revenues and spending, policymakers have proposed options for taxing EVs, including a tax on charging, a manufacturer tax, an annual registration tax, or a per-mile tax.

Gas Taxes and the Highway Trust Fund

The Highway Trust Fund (HTF) is a federal accounting instrument that receives revenue from transportation excise taxes and provides a dedicated source of funding for surface transportation projects. Since FY2001, annual expenditures from the HTF have generally exceeded annual revenues, which has raised questions about the lifespan of the trust fund. The Congressional Budget Office (CBO) projects that under current law, the HTF will not have sufficient funds to fulfill federal obligations to state and local governments for transportation projects in FY2028.

The HTF's primary revenue source is an 18.3 cents per gallon tax on gasoline, commonly known as the gas tax. In FY2023, the HTF received over $23 billion in revenue from the gas tax, making up roughly 49% of its total revenue that fiscal year. The gas tax is a fixed dollar amount per gallon and can only be changed by an act of Congress. Congress last changed the gas tax in 1993, increasing it from 14 to 18.3 cents. Because the gas tax is not tied to inflation, it loses purchasing power over time, contributing to the gap between HTF revenues and expenditures. The gas tax lost approximately 73% of its purchasing power to inflation between FY1993 and FY2023. For more on the HTF, see CRS Report R48472, *The Highway Trust Fund's Highway Account*, by Ali E. Lohman.

Another reason the gas tax has declined in value is the increasing fuel efficiency of vehicles. In 1975, light-duty vehicles averaged 13.1 miles per gallon of fuel consumed; that figure increased to 27.1 in 2023. That increase is explained in part by more efficient internal combustion engines and in part by the rise of hybrid vehicles and EVs, which consume little to no fuel (and thus do not pay associated taxes). In 2023, EVs made up approximately 1.2% of all light-duty vehicles on U.S. roads. That same year, the Energy Information Administration projected that EVs could account for 10%-26% of all new vehicle sales by 2030 and 13%-29% by 2050, although this projection may be affected by changes to federal laws and regulations.

Tax on Electricity Charging

A tax on EV charging is one way EV drivers could pay into the Highway Trust Fund. Just as drivers of gas-powered vehicles pay taxes on their gas usage, a tax could be levied on the amount of electricity that EV drivers charge at public stations. Given that gas-powered cars average 22.8 miles per gallon and EVs average 3.6 miles per kilowatt-hour (kWh), a tax of 2.9 cents per kWh would amount to a comparable tax per mile on the average EV as on the average gas-powered car. Eight states already levy such taxes, and Nebraska has scheduled a charging tax of 3 cents per kWh to take effect in 2028.

In this approach, plug-in hybrid-electric vehicles (PHEVs), which use highly variable amounts of gasoline vs. electricity, would pay tax on gasoline and electricity proportionally to their use. With a charging tax, PHEV drivers would pay the gas tax for their gas consumption and the charging tax for their electricity consumption.

However, estimates suggest that 80% or more of charging occurs at drivers' homes, so a tax at charging stations would miss most EV charging. At present, the only way to distinguish residential EV charging from other residential electricity usage is to install a submeter in one's home. A federal charging tax would thus either apply to only a small fraction of EV charging or would create additional compliance costs for the taxpayer or the government.

State-level experiences show that EV charging taxes raise relatively little revenue. Utah's 12.5% public charging tax, which is the highest in the nation, raises less than $50,000 per month. Wisconsin's recently enacted charging tax of 3 cents per kWh, which is closely equivalent to the federal gas tax, is projected to raise less than $286,000 per year—equivalent to less than $1 of monthly revenue per EV.

EV Manufacturer Tax

Another policy option is to impose a one-time excise tax on manufacturers and importers of EVs. Since there are relatively few manufacturers and importers of EVs, this tax would be relatively simple to administer. This design would be broadly similar to the current *gas guzzler tax* (Internal Revenue Code [IRC] §4064), which imposes a tax ranging from $1,000 to $7,700 on sales of certain vehicles with fuel economies of less than 22.5 miles per gallon.

A potential challenge with this design is accounting for exempt users and uses. Under current federal motor fuel excise taxes, certain users (such as state and local governments, nonprofit educational organizations, and qualified blood collector organizations; IRC §4041(g)) and certain uses (such as fuel used for certain farming purposes, IRC §4041(f); and off-highway business uses, such as in construction machinery, IRC §6421) are exempt. Certain vehicles can transition between nontaxable and taxable uses, such as a surplus vehicle sold by a government or a business vehicle used for both on- and off-highway uses. A one-time tax assumes the vehicle will be used for taxable purposes throughout its lifetime. An annual refund process

could resolve this, but the IRS's concerns around fraudulent claims for fuel excise tax refunds suggests that an annual refund process may be susceptible to fraud.

A manufacturer excise tax could vary by EV characteristics, such as vehicle type, weight, or battery capacity. However, experiences with other one-time vehicle taxes suggest the need for an accompanying excise tax on vehicle alterations to prevent tax abuse. For example, the federal excise tax on sales of heavy trucks and trailers (IRC §4051(a)) taxes modifications made to the vehicle within six months after purchase (IRC §4051(b)) to prevent tax avoidance by selling a stripped truck and then upgrading it free of tax.

Annual EV Tax

In response to decreases in state gasoline taxes from EVs, 39 states have imposed special registration fees for EVs. Those fees range from $50 to $290 and are often part of the state's regular vehicle registration process. Since the states already register vehicles periodically and the registration includes information about each vehicle, these additional fees are relatively simple for the states to administer.

The federal government could also charge an annual EV tax. A 2023 CBO testimony stated that an FY2022 annual tax of $100 would have provided parity with the average gas-powered vehicle, and may have raised about $300 million that year.

While an annual EV tax could avert some challenges with administering exemptions and preventing tax avoidance schemes, an annual EV tax could be difficult for the federal government to administer in other ways. There are currently 3 million EVs on the roads. Collecting and enforcing an annual tax on that many drivers could be administratively challenging, but certain design choices (such as using state vehicle registration data) could simplify administration.

In May 2025, the House-passed version of H.R. 1 would have created tiered annual registration fees for vehicles: $250 for EVs, $100 for hybrid vehicles, and no fee for other vehicles (e.g., gas-powered vehicles). The proposal would have required states to administer the fees and remit the revenues to the federal government. States not remitting these fees would have been subject to penalties designed to be 25% higher than what the fee revenues would have been. This proposal was not adopted by the Senate and was not included in P.L. 119-21 (commonly referred to as the One Big Beautiful Bill Act) as signed by President Trump on July 4, 2025.

Vehicle Miles Traveled Tax

A vehicle miles traveled (VMT) tax is a *user fee* that charges drivers a certain amount for every mile driven. The gas tax is often described as a user fee because the amount a driver pays in taxes roughly scales to the distance they drive. However, the relationship between miles driven and gallons of gas consumed is imperfect, given the variance in fuel efficiency among different cars.

A VMT tax would have a more linear relationship between road use and taxes paid than a gas tax. Like the gas tax, such a tax could also be indexed to inflation to avoid diminishing purchasing power over time.

At least 14 states have conducted voluntary VMT pilot programs. These pilots have used various methods of determining total miles driven, including manual odometer readings, smartphone apps, plug-in devices, and in-vehicle telematics. Each method has trade-offs among costs of implementation, reliability, and potential for fraud.

Regardless of data collection method, a VMT tax is likely to cost more to administer than the gas tax. To administer the gas tax, the federal government collects revenue from roughly 850 registered suppliers, distributors, refiners, and blenders of fuel. Administrative and enforcement costs of the gas tax are generally estimated to be less than 1% of revenue collections. For a VMT tax, the federal government would likely need to collect revenue directly from private vehicle owners. Experience in the United States and other countries suggests that the administrative and enforcement costs of collecting a VMT tax could be in the range of 5% to 13% of VMT revenue collections.

VMT taxes may also raise privacy concerns. A VMT tax might cause private companies or government entities to collect more data on the miles a vehicle has been driven or even on vehicle location. Most state pilot programs outsourced management of participant accounts to private-sector partners, in part to mitigate privacy concerns.

In 2022, the Government Accountability Office (GAO) recommended that the Federal Highway Administration (FHWA) develop and apply criteria to assess the scalability of state VMT pilots. According to GAO, as of April 2024, the FHWA had developed a framework for assessing scalability and begun evaluating VMT pilots. In the Infrastructure Investment and Jobs Act (P.L. 117-58), Congress further required that DOT conduct a nationwide pilot of a VMT tax.

Revenue Potential and Economic Effects

EVs and PHEVs jointly constituted 1.7% of the total U.S. vehicle fleet in 2023, limiting the short-term revenues that can be raised from EV taxes. As noted above, an EV charging tax might raise as little as $1 per EV per month (roughly $40 million per year if set to 2.9 cents per kWh), and CBO estimated that a $100 annual registration fee would raise roughly $300 million. By contrast, CBO projects that the HTF will have an average deficit of $41 billion per year over the next decade (FY2026-FY2035).

While a tax on EVs alone will not bring the HTF into balance, Congress may consider it as part of a broader reform agenda. EV taxes may also decrease EV purchases, which would affect the economy and the environment. EV drivers have higher incomes than the general population, so a tax on EVs would affect higher-income households more.

Nicholas E. Buffie, Analyst in Public Finance
Anthony A. Cilluffo, Analyst in Public Finance
Ali E. Lohman, Analyst in Transportation Policy

IF13064

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