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This report was supported by the Natural Resources Defense Council. The conclusions contained herein are Atlas's alone.

Executive Summary

In at least 32 states, EV drivers pay more in road user fees than drivers of gasoline vehicles pay in gas taxes. Road user fees for EVs include additional registration fees for efficient vehicles in 39 states, sales and utility taxes on electricity in 35 states, and taxes on EV charging in nine states. In 2025 alone, there have been proposals in at least 29 states to levy additional taxes and fees on EVs and EV charging. As of June 2025, three of these proposals have passed. One active proposal, an annual registration fee on charging stations, has yet to be levied in any state for the purpose of raising highway revenue. EV drivers pay a number of state-level taxes and fees that do not apply to gasoline car drivers. The focus of this paper is on the last two entries in the table, highlighted in gray (Table ES-1).

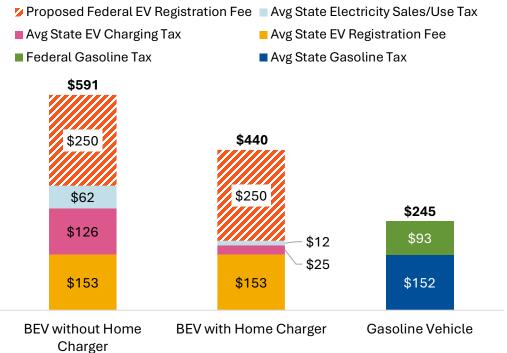
Table ES-1. EV-Specific State Road User Fees and Taxes

Туре	Description	Number of States with this Fee/Tax
Additional Registration Fees for Efficient Vehicles	Battery EV registration fees, typically levied annually, in addition to standard registration fees on all vehicles. Some states also charge additional registration fees for plug-in hybrid EVs and hybrids.	39
Sales and Utility Taxes on Electricity	Sales and utility taxes on electricity consumption.	35
Energy-based EV Charging Taxes	Taxes on electricity dispensed through EV chargers. Based on the amount of energy consumed, usually per kWh or minute.	9
Annual Charging Station Registration Fees	Annual registration fees for EV charging stations, paid by the charging service provider.	0, but under consideration



These taxes and fees on EVs and EV charging stack up. EV drivers that rely on public charging in the nine states with energy-based charging taxes can expect to pay up to \$341 annually in state EV taxes and fees, while their gasoline vehicle counterparts pay \$152 in state gas taxes (Figure ES-1).¹ EV drivers without access to home charging, generally those without private driveways or living in multifamily housing, are hit harder than those who have access to home charging. Congress also considered adding a federal EV registration fee of \$250 or \$500 annually, a proposal that may be elevated again.





For all nine states that have energy-based EV charging taxes, the revenue from the tax is estimated at less than 0.2 percent of current highway spending in each state. Even considering forecasted increased EV adoption, revenue is expected to rise in 2030 to less than one percent of highway spending in each state. As such, EV taxes and fees penalize EV drivers while failing to raise significant revenue. Meanwhile, the administrative cost of collecting charging taxes rivals revenues for the first year, with state cost estimates ranging

¹ Shortly after the cutoff date for analysis in this report, June 1, 2025, the Minnesota legislature passed increased annual registration fees for EVs and instituted an energy-based tax on EV charging [65], making Minnesota the state with the highest EV taxes and fees and highest EV penalty in the United States. While Atlas did not recalculate analysis outcomes in the main body of the report, Appendix F and Appendix H include updated information specific to Minnesota.



from at least \$253,000 to \$1,200,000 for the first year and \$55,000 to \$500,000 for subsequent years.

Decades of research and investment by private industry and government in battery technology have yielded significant cost reductions for EVs, such that many popular gasoline vehicles now have cheaper EV alternatives on a total cost of ownership basis. EV charging taxes and fees decrease demand for EVs by cutting into or reversing savings on fuel and maintenance costs. The outlook for electric vehicle adoption in the United States is uncertain, given the evolving policy and regulatory landscape both domestically and abroad, as well as ongoing strategy adjustments by automakers. One such example of the shifting policy environment at the federal level is the removal of the \$7,500 federal tax credit for new EV purchases after September 30, 2025. Taking the Chevrolet Equinox as an example, stacking current and proposed EV and EV charging taxes and fees and eliminating the federal tax credit removes most of the total cost of ownership advantage for the EV model over its gasoline model counterpart. Areas with higher electricity prices are hit even harder.

This report provides an overview of road funding in the United States and the rise of EV-specific taxes and fees. It then focuses on state-level taxes and fees on EV charging. It provides estimates of the amount of revenue EV charging taxes would raise, the costs of raising these revenues, the impacts on EV drivers and EV adoption, and the effect on broader policy goals. Atlas finds that EV drivers already pay more in fuel taxes and fees than gas car drivers in most states, and that levying charging fees is an economically inefficient way to collect additional revenue.

Introduction

For the last three decades, funding for roads has been under increased pressure due to rising construction costs, stagnant motor fuel taxes, and to a lesser extent, improved fuel economy. As the number of electric vehicles (EVs) on the road has grown in recent years, state policymakers have increasingly introduced additional taxes and fees on EVs to replace lost motor fuel tax revenue. Though EVs, both battery EVs (BEVs) and plug-in hybrid EVs (PHEVs), on the road are expected to grow considerably in the coming years, lost state



motor-fuel revenue from EVs accounts for just 0.36 percent of annual state highway spending yet receives a disproportionate share of the focus.²

Highway Funding in the United States

In 2023, federal, state, and local governments in the United States spent \$284 billion on highways [1]. State governments generated 56 percent of this funding, while local governments raised 26 percent, and the federal government, 18 percent [1]. However, almost all federal road funding—95.4 percent in 2021—is ultimately channeled to state and local governments, which own over 99 percent of public roads [2].

Motor fuel taxes account for roughly two-thirds of federal highway funding [3]. Federal revenues are funneled into the Highway Trust Fund (HTF) to finance surface transportation projects. Revenue has not been sufficient to account for transportation expenditures, requiring consistent injections of funding from other sources (Figure 1). Since 2008, Congress has transferred \$275 billion, mostly from the general fund, to the HTF to make up for shortfalls [4]. These large transfers undermine the original philosophy behind the HTF, that users of the system should pay for road construction and upkeep [5].

² Atlas analysis. Percent of total vehicle miles traveled that are electric assumed to be same as percent of registered EVs to all registered vehicles. Multiplied electric vehicle miles traveled by \$ per mile state gas tax assuming average fuel economy of 23.7 mpg. Then divided total lost revenue by total state highway spending.



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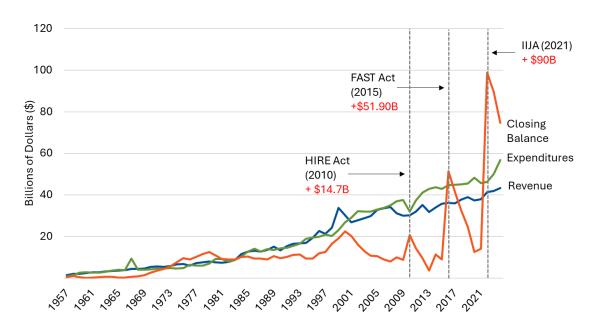


Figure 1. Highway Trust Fund Expenditures and Revenues as of 2023

The large orange spikes show infusions from the general fund. Funding for the Highway Account only.

Source: Federal Highway Administration and Eno Center for Transportation. [6] [7]

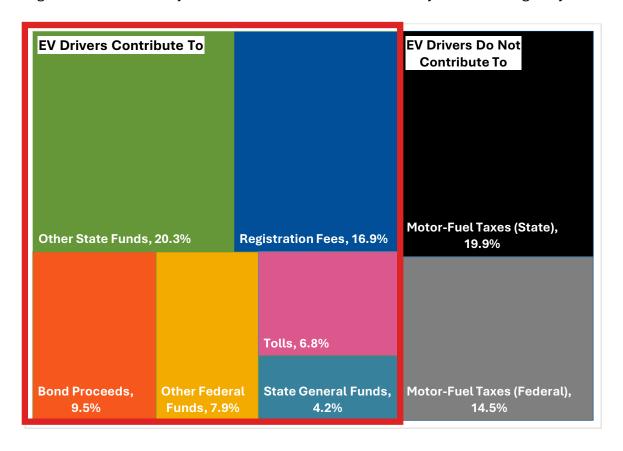
The primary factor for the funding shortfall is increased highway construction costs that exceed inflation. These costs have more than tripled over the last 20 years. Meanwhile, the federal gas tax has not been raised since 1993, and no significant new revenue mechanisms have been added. Analysis by the Union of Concerned Scientists in 2025 showed that increased construction costs eroded the value of the gas tax by 78.6 percent since 1993, while increased vehicle efficiency reduced gas taxes by 17.1 percent; the use of electric vehicles has reduced gas tax revenues by only two percent [8].

At the state level, motor fuel taxes have risen, but not enough to keep pace with rising costs. State motor fuel taxes account for less than 20 percent of revenues for highways, with the contribution of federal motor fuel taxes adding another 14.5 percent for a total of 34.5 percent (Figure 2). State general funds, vehicle registration fees, and bond revenues are the next three largest sources of revenue.



EV drivers, like gasoline drivers, pay into the 66 percent of state revenue for highways that comes from registration fees, tolls, general funds, repayments on bonds,³ and other federal and state funds.

Figure 2. EV Drivers Pay into Most Revenue Streams Used by States for Highways



Data is for 2017-2022 to compensate for annual variations.

Source: Federal Highway Administration (FHWA) [9]

Reliance on motor fuel tax revenue (both state and federal) for highway spending ranged from 9.9 percent in New Jersey to 64.7 percent in Tennessee (Figure 3). In contrast to the federal government, 33 states have increased their gas taxes since 2013. Six states tie their gas tax rates to inflation, and 18 others automatically adjust their gas tax rates to indexes such as population, gas prices, and revenues [10]. Estimated lost state tax revenue from light-duty EVs compared to the average new light-duty vehicle is equivalent to 0.36 percent

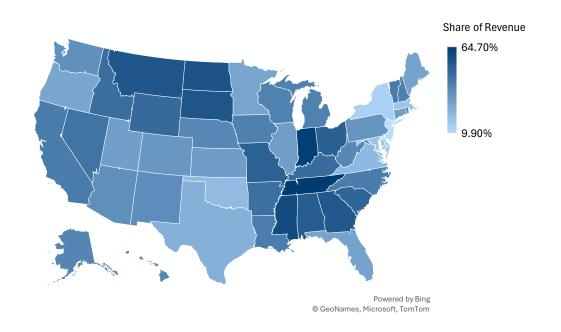
³ States repay bonds for highway projects from general revenue, motor fuel revenue, or other sources of revenue. The 66 percent figure would be for a state that repays bonds from general revenue.



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of state highway spending.⁴ Although this share will grow as EV adoption rises, it will remain marginal for years to come [11].

Figure 3. Share of Highway Revenues in 2022 from State and Federal Gas Taxes Ranges from 10 Percent in New Jersey to 65 Percent in Tennessee



States with darker shades of blue have a larger share of revenue generated from state and federal motor fuel taxes. Motor fuels include both gasoline and diesel. Data is for 2022.

Source: Federal Highway Administration (FHWA) [12]

The Rise of EV-Specific Fees and Taxes

An increasing number of states are levying taxes and fees on EVs and EV charging to help pay for rising costs in road construction. As of June 2025, at least 39 states are collecting EV-specific registration fees on top of the base vehicle registration fee paid by both gasoline and EV drivers. These additional fees, which are paid upfront annually, range from \$50 to \$250 per year, with states levying an average fee of \$146 per year. States are also beginning to consider and implement fees on EV charging, ranging from 1.7 to six cents per kilowatthour (kWh). As of June 2025, nine states have added EV charging taxes on public charging,

⁴ Percent of total vehicle miles traveled that are electric assumed to be same as percent of registered EVs. Multiplied electric vehicle miles traveled by per mile state gas tax assuming average fuel economy of 23.7 mpg. Then divided total lost revenue by total state highway spending.



where an estimated 20 percent of charging takes place. EV drivers pay a number of state-level taxes and fees that do not apply to gasoline car drivers. The focus of this paper is on the last two entries in the table, highlighted in grayscale (Table 1).

Table 1. EV-Specific State Road User Fees and Taxes

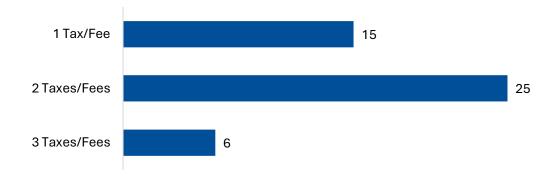
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There are various types of fees and taxes EV drivers may face, potentially costing hundreds of dollars per year. This report focuses on energy-based EV charging taxes and annual charging station registration fees, highlighted in grey here.

EV registration fees and charging taxes are additive to existing vehicle registration fees and the price of the charging service. This means that EV drivers may face hundreds of dollars in registration fees annually, as well as increased fuel costs when charging their vehicles, posing an additional burden for low- and moderate-income people looking to purchase an EV. Furthermore, as of the end of 2023, EV charging customers in at least 32 states are required to pay a sales or use tax, and two states collect an electricity or utility tax for EV charging [13]. Notably, most states exempt gasoline from sales taxes [14].



Figure 4: Number of States with Stackable Taxes and Fees on EVs



Fees considered in the chart include EV registration fees, charging taxes, sales and use taxes for EV charging, and electricity and utility taxes for EV charging. All taxes and fees counted are levied at the state level.

Source: Atlas EV Hub [15]

To better understand the cumulative nature of these stackable fees, Atlas calculated a state-level "EV Penalty", representing the average difference in the total amount EVs may pay compared to a gasoline vehicle, by state. The penalty considers the total number of EV-specific taxes and fees an EV driver who solely charges their vehicle at public chargers might pay in a single year, compared to state gas taxes paid by a gasoline vehicle driver. The penalty assumes a worst-case scenario, as many drivers with reliable home charging will likely rely on that more than charging in public. Atlas finds that EV drivers pay more than gasoline vehicle drivers in 32 states, with EV penalties ranging greatly by state (Figure 5).



\$259.25

Figure 5. Average Annual EV Penalty by State

Assumes vehicles travel 12,000 miles/year, BEVs get 3 miles/kWh, and gasoline vehicles have a fuel economy of 23.7mpg. Uses Electrify America 2023 pricing for public charging prices at the charger and assumes all charging occurs at public chargers. Does not consider local or federal taxes and fees. Orange-colored shading indicates states where EV drivers pay more than the gasoline driver, while green-colored shading indicates the opposite.

Source: Atlas EV Hub [15]

This paper, which focuses on understanding the financial impacts of state-level EV charging fees and taxes, will assess their contribution to filling road funding gaps and assess the potentially punitive nature of these fees, especially on those without access to home charging.

Revenues and Costs from EV Charging Taxes

Both types of charging taxes, EV charging station registration fees and energy-based EV charging taxes, would raise minimal revenues, have administrative costs that exceed



revenue in certain states, and stack on top of other taxes and fees that the average EV driver already pays.⁵

Energy-Based Charging Taxes

As of June 2025, nine states have energy-based taxes on EV charging, and more are considering adding these taxes, notably Illinois (Table 2). Pennsylvania was the first state to enact an energy-based charging tax in 1998. Iowa followed over twenty years later in 2019. Since 2021, seven additional states have passed legislation adding energy-based charging taxes, ranging from 2.8 to 3.0 cents per kilowatt hour (kWh). The rates were chosen based on reasoning such as energy density equivalent between gasoline and electricity, indexing to inflation or Consumer Price Index, or other reasons not explicitly mentioned in the legislation. Utah's tax is unique in that it is 12.5 percent of the retail cost of electricity, equating to approximately six cents per kWh if the price to charge is assumed to be 48 cents per kWh.

Table 2: Energy-Based EV Charging Taxes by State

State	Current Tax Rate	Legislation Passed	Effective Date	Scope
Utah [16]	12.5% on retail cost (~6.0 cents/kWh)	3/22/2023	1/1/2024	All pay-to-charge public charging that imposes per-session or subscription fees
Pennsylvania [17]	1.72 cents/ kWh	1/1/1998	1/1/2019	All non-residential charging
lowa [18]	2.6 cents/ kWh	05/16/2019	7/1/2023	All non-residential charging
Georgia [19]	26 cent equivalent from excise gas tax (~2.8 cents/ kWh)	5/2/2023	1/1/2027	All non-residential charging

⁵ Unless otherwise noted, a charging station, also known as a station location, refers to a physical place with one or more EV charging ports [63].



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State	Current Tax Rate	Legislation Passed	Effective Date	Scope
Kentucky [20]	3.2 cents/ kWh	4/14/2022	1/1/2023	Publicly accessible DCFC chargers
Montana [21]	3.0 cents/ kWh	5/23/2023	7/1/2024	All public charging from stations with a rated capacity of >25 kW, 2-year lag for legacy chargers
Oklahoma [22]	3.0 cents/ kWh	4/22/2021	1/1/2024	All pay-to-charge public charging, legacy chargers exempt
Wisconsin [23]	3.0 cents/ kWh	3/21/2024	1/1/2025	All non-residential charging, legacy L1 & L2 chargers exempt
Nebraska [24]	3.0 cents/ kWh	4/23/2024	1/1/2028	All commercial charging
Illinois [25]	6.0 cents/kWh	Failed to Pass	Failed to Pass	All pay-to-charge public charging

All states above except Illinois have passed legislation for energy-based taxation on EV charging.

Several additional state legislatures are considering or have considered bills for energy-based taxes, including Connecticut, Illinois, Maryland, Minnesota, Missouri, Mississippi, Texas, and Wyoming. Illinois recently considered a six-cent/kWh EV charging tax, which is twice as high as that of most other states, though the bill did not pass before the end of the 2025 legislative session [25].

The scope of implementation for revenue and cost estimates is limited to public or non-residential chargers, as none of the states with energy-based charging taxes currently tax residential charging. An estimated 80 percent of charging occurs at home [26]. Methods for calculating revenue and costs in this section of the paper will focus on public chargers specifically.

Revenue from Energy-Based Charging Taxes

Revenue to the state from energy-based EV charging taxes on public charging can be calculated by multiplying the tax rate by the number of electric vehicle miles in the state,



which is assumed to be proportional to the percentage of light-duty vehicles (LDVs) in the state that are EVs. Atlas also assumes that 20 percent of charging occurs at public chargers and that all public chargers in these states are taxed. See Appendix G for details on assumptions, sources, and calculations.

For all nine states that have enacted energy-based charging taxes, the revenue from the tax is estimated at 0.02 percent to 0.10 percent of current highway spending in each state.

Revenue is expected to rise in 2030 to 0.06 to 0.70 percent of highway spending in the state.

Table 3. Estimated Revenue from Energy-based EV Charging Taxes

State	Chargin g tax (c/kWh)	Revenue from charging tax, 2025	Revenue from charging tax, 2030	Revenue as % of state highway spending, 2025	Revenue as % of state highway spending, 2030
Georgia	2.8	\$5,292,355	\$21,187,814	0.11%	0.40%
Illinois*	6.0	\$9,873,828	\$39,186,998	0.13%	0.46%
Iowa	2.6	\$446,922	\$1,722,678	0.02%	0.06%
Kentucky	3.2	\$764,565	\$2,994,289	0.02%	0.09%
Montana	3.0	\$320,757	\$1,249,745	0.03%	0.12%
Nebraska	3.0	\$388,198	\$1,511,600	0.02%	0.08%
Oklahoma	3.0	\$1,646,818	\$6,045,427	0.05%	0.15%
Pennsylva nia	1.7	\$2,059,623	\$8,017,674	0.02%	0.06%
Utah	6.0	\$4,336,276	\$17,226,562	0.17%	0.62%
Wisconsin	3.0	\$1,553,142	\$6,072,583	0.04%	0.14%

Revenue estimates assume 20 percent of all charging occurs at chargers covered by each state's tax. State highway spending data is from form SF-2 of FHWA's Highway Statistics series [12]. *Illinois legislation did not pass but is under consideration.

If states expanded the tax to include home charging, then revenues would be approximately five times higher, since Atlas assumes that 20 percent of charging is at public chargers and that all public charging is covered under each state's tax. The total EV charging tax revenue for Kentucky would then be \$3.8 million in 2025 and \$13.6 million in 2030, or 0.1 percent and 0.4 percent of state highway spending in those years, respectively. The only state to tax at-home charging, Pennsylvania, was unsuccessful in doing so due to low compliance, as



many EV drivers were unaware of the requirement, and it relied on self-reporting [27]. As a result, Pennsylvania's policy was amended in 2024 to limit taxation to non-residential charging.

In addition to the estimates in this paper, some states offer their own revenue projections of the energy-based tax rate. Wisconsin's charging tax legislation estimated a \$427,600 revenue total for 2025-2026; however, they assume a greater average EV efficiency and far fewer miles traveled, resulting in a lower estimate than methods used in this paper [28]. To keep consistent amongst different states, revenue estimates in this paper rely on a common set of assumptions and methods. Evidence from a previous Atlas report found that Pennsylvania's revenue from per kWh charging taxes was approximately \$500,000 in 2018 and \$1 million in 2023 [27].

Cost of Collecting Energy-Based Charging Taxes

The cost of collecting revenue for energy-based charging taxes is more complicated than collecting revenue for a gas tax. Depending on the details of how the charging tax is levied and collected, there may be costs associated with, but not limited to:

- Administrative staff time Similar to enforcing other taxes, dedicated time and
 effort is required for registration, remittance review, and audits. This cost
 component can rival revenue in early years if the EV share in a state is small.
 Administrative costs also include driver and operator outreach, education, and
 enforcement to ensure compliance. As EV adoption increases, administrative staff
 time will likely also increase as the workload grows.
- IT systems and payment portals Digital infrastructure is often needed to facilitate data-exchange links with networks and utilities for measuring and collecting payments.
- Metering and inspection (weights and measures) Some of the states require
 charging stations to be certified like gas stations, which require test equipment and
 field staff. The inspection and metering are to make sure the charger is functioning
 and accurate in the amount of electricity it dispenses. Inspection is not necessarily
 required for instituting an energy-based charging tax, but some states require it in
 the same legislation that sets up the tax.

Taxes on EV charging apply to a larger number of entities than gas taxes. Taxes can be levied directly on charging service providers, of which there are a limited number. Examples include Electrify America, Tesla, ChargePoint, and EVgo. Alternatively, states can also tax more generally any owner or operator of a charging station, of which there is a much larger number. Charging stations owners or operators include individual gas station owners, store owners, and restaurants. This places a greater burden on taxpayers and creates challenges in ensuring all obligated parties pay the tax [29].



While DCFC chargers and "smart" models of Level 2 chargers can accurately and reliably measure electricity dispensed, many public Level 2 chargers lack the necessary metering capacity to do so. Taxing energy disbursed and requiring metering capabilities of those chargers would require retrofitting many public Level 2 chargers and other legacy chargers covered under a charging tax with metering capacity. The cost would likely fall on owners or operators of Level 2 public charging stations and sites and may discourage businesses from offering EV charging. The challenge increases when home chargers are in scope, where Atlas assumes that most EV drivers have access to a Level 2 or Level 1 home charger. There are currently no known implemented methods for tracking who has a home charger or for collecting energy-based taxes on home charging. Individuals with home chargers, businesses, and providers of older public chargers alike would need to retrofit their chargers with separate metering capability. This would require additional work for local utilities and would result in an additional expense to the homeowner or business on the magnitude of \$600,6 though this would vary by region, given different costs such as labor.

Georgia

Georgia's EV charging tax requires that all non-residential charging stations—any device or group of devices that delivers electricity—adhere to the per kWh charging tax [30]. This includes public charging stations that offer free electricity. The law places the responsibility of adhering to the tax requirements on the station operator, or owner, of the charging station. Private entities that offer public charging will also be required to meter the total amount of electricity dispensed. To enforce and collect this tax, the state is required to finance an unspecified number of inspectors and equipment for annual inspections of every public charging station, as well as any clerical help necessary to enforce the tax. Further, because Georgia wants to better understand how best to implement the tax, the state is spending \$350,000 to fund a study, and the implementation of the tax is now delayed until 2027 [31].

Illinois

The state's proposed tax that ultimately failed to pass in Illinois required the tax to be levied at any charging station where electricity was supplied to customers for a fee [25]. The proposed legislation defined a charging station as *any place accessible to general public vehicular traffic*. The tax would place the burden of collection and payment of the EV

⁶ This is a rough, order of magnitude estimate. Assumes that remote readable kWh meters range in price from \$195 to \$315 [66] and that labor time for meter installation ranges from one to four hours with \$150 for the service call covering the first hour and \$100 per hour for subsequent hours [67].



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charging tax on the power provider, the owner or lessor of an EV charging station. In order to enforce the tax collection, the bill would have required every eligible power provider to register with the state for certification purposes. Besides these requirements, the bill did not specify how power providers should measure and report kWh usage per station, but would have likely required the installation of separate metering equipment. The bill was not accompanied by any further information of estimates from fiscal notes.

Kentucky

In Kentucky, their per kWh charging tax applies to any public DCFC EV charging station supplied by an EV power dealer, charging station being any place accessible to general public vehicular traffic where electric power may be used to charge a battery of an EV [32]. The EV power dealer is responsible for collecting and paying the tax from electricity sales at EV charging stations, regardless of whether payment is accepted at the station or not. An EV power dealer means any person who owns or leases an EV charging station. Kentucky exempts charging stations installed prior to July 1, 2022, and older and less powerful charging stations from being taxed due to the difficulty states like Georgia are experiencing in understanding how to tax non-networked chargers. Further, in 2024, Kentucky decided to retroactively exclude Level 1 and Level 2 charging stations from taxation; only charging stations with a capacity greater than 20 kW are required to pay the tax [33]. The charging tax legislation's fiscal note provides no estimates for the costs to administer or collect the tax [34].

Pennsylvania

Pennsylvania levies its per kWh charging tax, covered under its Alternative Fuels Tax, on all non-residential charging stations, regardless of whether it's provided for payment or not. Charging stations are defined as a facility or equipment designed to charge EV batteries [17]. The state requires charging station operators, anyone who delivers or supplies publicly consumed electricity, to collect the tax and submit payment. While the legislation's fiscal note provides revenue estimates, it doesn't indicate a collection cost estimate. A recent change in their law permitted battery electric vehicle (BEV) and plug-in hybrid electric vehicle (PHEV) owners to pay a Road User Charge instead of the per kWh alternative fuels tax at privately owned charging stations [35]. Pennsylvania reported that levying the fee on privately owned chargers was practically infeasible and prohibitively expensive, as the administrative and enforcement costs are very likely to exceed the revenue generated on both residential and public charging, according to prior research conducted by Atlas [27]. Levying the tax on public Level 1 and Level 2 charging stations would still likely require the use of metering equipment to report kWh usage per station.



Wisconsin

In Wisconsin, any owner or operator of a non-residential charger, regardless of whether or not a consumer pays for electricity, must register with the state and pay the collected tax at the charging station biannually [36]. Eligible charging stations for the tax include any public charging stations containing a DCFC charger, or a Level 1 or Level 2 charger installed after March 22, 2024. The bill's fiscal note estimated a one-time administrative cost of \$453,090 to update the state's tax processing system and ongoing annual administrative expenses of \$333,660 for two revenue agents, two auditors, and other administrative supplies would be incurred [37]. The state also estimated a one-time cost of \$210,000 for new inspection equipment for EV charging stations, plus ongoing expenses for maintenance. Inspection would be required for all charging stations that are provided with electricity by non-public utilities. To accommodate additional staff for increased inspection costs related to charging stations, Wisconsin further contends that there will be annual costs of \$178,500 for the salary and benefits of two positions.

Utah

The 12.5 percent tax on charging stations for retail sale of electricity is levied on the station operator, the person or company *owning* or operating a charging station in the state [16]. Unlike other states, this tax can be applied based on the amount of energy dispensed, the length of time charging, a subscription fee for charging services, or a combination of all three. Utah allows charging station operators to retain 6 percent of the tax amount for the costs of collecting the tax. In the fiscal note for the tax legislation, Utah estimated one-time costs of \$573,100 to update the tax and motor vehicle system, forms, instructions, and processes; however, this cost estimate also includes administrative time and effort for other facets of the legislation, including the cost of reducing the tax on motor fuels and increasing the vehicle registration fee [38].

Estimates from Additional States

Additional cost estimates can be found in legislation from states such as Montana, Nebraska, and Oklahoma. Montana estimated \$332,000 to develop an IT solution in the first year and then \$141,000-\$143,000 annually to operate and maintain it [39]. They also allow the public utility distributing electricity to the charging station owner to retain 0.25 cents per kWh of the tax. Nebraska estimated \$110,900 to develop IT applications necessary for implementing the tax, including both staff time and development costs. The state said that the tax would have a minimal impact on funds for the Department of Revenue. Recurring costs will be around \$55,000 in subsequent years [40]. Oklahoma estimated a one-time cost of \$253,000 to modify their tax collection system and developer time [41].



Costs to EV Drivers of an Energy-Based Charging Tax

Annual costs to an individual EV driver from energy-based charging taxes are estimated by multiplying the number of miles driven per year by an assumed energy efficiency of 0.33 kWh per mile, then by the tax in dollars per kWh, and finally by the percentage of charging that occurs at public chargers (assuming only public chargers are taxed). See Appendix G for details on the assumptions and calculations. Using this methodology, annual costs to an individual EV driver from charging taxes average \$25 for those who have access to a charger at home. The impact is substantially higher, at an average of \$126, for EV drivers who do all their charging at public chargers (Figure 4).

If states were to tax all charging, including home charging, then the average annual cost for EV drivers who charge most of the time at home would also be \$126 for the tax on the electricity. However, drivers with access to a home charger would also incur the added one-time cost of installing separate metering capability from the rest of the home, if their charger does not already have that capacity. As calculated in the earlier section, this additional expense to the homeowner is on the order of \$600, though this would vary by region, given different labor costs. If the meter is a separate power meter, the utility would charge a monthly fee in addition to the cost of the electricity. If it is third party metering equipment, there would not be the monthly fee for a separate meter, but it is uncertain how the usage would be reported for the purpose of taxing. Logistically and administratively, it would be difficult and inefficient to enforce a requirement that homeowners separately measure the electricity usage from their EV charging and pay a tax on it.

Table 4. Annual Cost to EV Drivers of Energy-based Taxes

State	Charging tax in cents per kWh	Annual cost to BEV Driver of per kWh tax if have home charger	Annual cost to BEV Driver of per kWh tax if no home charger
Georgia	2.8	\$22	\$112
Illinois*	6.0	\$48	\$240
Iowa	2.6	\$21	\$104
Kentucky	3.2	\$26	\$128
Montana	3.0	\$24	\$120
Nebraska	3.0	\$24	\$120



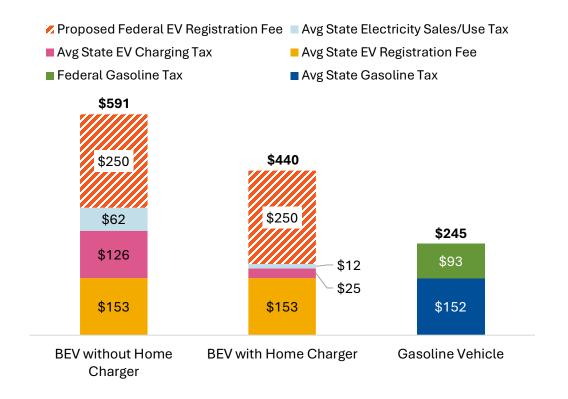
Oklahoma	3.0	\$24	\$120
Pennsylvania	1.7	\$14	\$69
Utah	6.0	\$48	\$240
Wisconsin	3.0	\$24	\$120
Average	3.15	\$25	\$126

Estimated taxes for BEV drivers assume the average BEV driver travels 12,000 miles per year, consumes 4,000 kWh of electricity per year, and only uses chargers that are prescribed to each state's charging tax, when not using a home charger. Estimated costs do not include additional sales/use/general taxes or taxes from utilities, or other electricity taxes. PHEVs are not included in these estimates. *Illinois legislation did not pass but is under consideration. Average calculations do not include Illinois numbers.

An important consideration with EV charging taxes is that these taxes stack on top of other EV-specific fees, as mentioned earlier in this paper. This includes EV registration fees, sales/use/general taxes, and electricity/utility taxes at the state level. For the nine states that have a per kwh charging tax, EV drivers who have access to a home charger pay an average of \$190 annually in taxes and fees, while gasoline vehicle drivers pay an average \$245. EV drivers with no access to a home charger, who must do all their charging at public chargers, pay \$341 in road user taxes and fees (Figure 6). If the previously proposed \$250 annual federal EV registration fee were enacted, these costs would increase to \$440 annually for drivers with a home charger and \$591 for drivers without a home charger. EV drivers would pay two and half times as much in road user fees as a gasoline vehicle driver.



Figure 6: Average Taxes and Fees for Electric Vehicles vs Gasoline Vehicles in Nine States with Energy-based EV Charging Taxes



Assumes vehicles travel 12,000 miles per year, EVs consume 4,000 kWh per year, a gasoline vehicle fuel efficiency of 23.7 mpg, and an EV energy efficiency of 3 kWh per mile. These estimates do not take PHEVs into account. These estimates do not include Illinois.

Annual Charging Station Registration Fees

As of June 2025, no state has implemented an annual registration fee on public or private charging stations to cover highway expenses. However, several states have introduced public charger or charging station registration fees to cover inspection costs. In Washington, Level 2 ports are subject to an annual \$20 registration fee, and DCFC ports an annual \$40 registration fee, paid for by the charging service provider [42]. This one-time fee is meant to cover inspection and testing for installed EV charging ports, similar to inspection fees for gas stations. Lawmakers in Colorado tried to pass legislation that would charge \$130 per port per year to fund statewide inspection and certification charges; however, the legislation failed to pass in May 2024 [43]. Pending after being introduced in legislation in January 2025, a bill in New Hampshire is proposing an annual \$175 fee per charging meter to similarly cover annual calibration and weights-and-measures funding



[44]. Every proposed or implemented legislation in these states channels the money into inspection and consumer-protection programs instead of highway funding.

Alternatively, Georgia is the only state that has introduced legislation that ties an annual per-charging station fee to fund highway and road construction and maintenance. In March 2025, Georgia lawmakers introduced legislation that would amend a previously passed bill, SB 146, which subjects EV drivers to a per kWh charging tax for use of non-residential EV charging stations [45] [46]. The bill has one sponsor and has received little support in the state House. The amended text suggests implementing an annual fee on non-residential charging stations ranging from \$50 to \$250. The \$250 amount would be levied on pay-to-charge EV charging stations, while the \$50 fee would apply to free-to-charge, alternating current EV charging stations. Because Georgia is the only known state to propose legislation to collect revenue from annual registration fees on charging stations, this paper will use their designed method as the foundation to estimate revenue and costs.

Estimated Revenue from Charging Station Registration Fees

To estimate the annual revenue that charging station registration fees would generate, Atlas assumes that an annual fee is applied to each non-residential EV charging station in operation, regardless of its utilization, location, power level, or any other charger specifications. A charging station is a location containing at least one charging port. Atlas assumes that these fees will be applied to both Level 2 and DCFC chargers. The following will apply:

- Free to charge, Level 2 charging stations will be subjected to a \$50 annual registration fee, paid for by the operator or owner of the EV charger.
- All pay-to-charge charging stations will be subjected to a \$250 annual registration fee, paid for by the operator or owner.

Atlas assumes that all public DCFC chargers would be subjected to the \$250 annual registration fee in this scenario. Using a study produced by the International Association for Energy Economics, it is also assumed that 60 percent of projected Level 2 charging ports in both 2025 and 2030 will be free-to-charge [47]. Following the proposed legislation, Atlas also assumes all workplace chargers will be subjected to the \$50 annual registration fee. Using the U.S. Energy Information Administration (EIA)'s Annual Energy Outlook to predict the stock of EVs in Georgia, combined with AFDC's EVI-Pro Lite Charging Need Tool, Atlas assumes that Georgia will have nearly 9,760 compliant pay-to-charge public charging ports and 17,370 compliant free-to-charge Level 2 charging ports by 2030, see Table 5 [48] [49].

⁷ This legislation has been delayed twice, once in 2024 and once in 2025, with the implementation date now on January, 1, 2027. The delay allows the state time to assess a way to accurately implement the tax [64] [31].



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EVI-Pro Lite determines the number of charging ports based on daily travel patterns in Georgia to support the projected number of EVs on the road. To translate port count to charging station count, Atlas assumes Level 2 charging stations will range from 1-2 ports per station and DCFC charging stations 1-4 ports per station, resulting in ranges for estimated revenue generated.

Table 5. Number of EV Charging Ports in Georgia

0005	
2025	2030
212,474	839,391
2,990 (L2) 946 (DCFC)	7,573 (L2) 2,186 (DCFC)
6,467 (L2)	17,374 (L2)
\$0.49 – 0.98	\$1.08 – 2.44
\$0.16 - 0.32	\$0.43 – 0.87
	2,990 (L2) 946 (DCFC) 6,467 (L2) \$0.49 - 0.98

Revenue estimates assume that 98 percent of drivers have access to home charging. Level 1 chargers are not included in revenue estimates. Revenue estimates are provided in ranges to account for the variability in the number of ports per charging station. Level 2 charging stations range from one to two ports per station, and DCFC range from one to four ports per station.

Source: Energy Information Administration [50], Alternative Fuels Data Center [49]

If implemented, Georgia would collect approximately \$1.51 to \$3.31 million in annual revenue by 2030 from EV charging stations. Using historical spending patterns from previous years, Atlas estimates that the state of Georgia will spend approximately \$5.4 billion on highways and roads in 2030. This means that revenue collected from EV charging stations in 2030 would only contribute to approximately 0.03 -0.06 percent of the total anticipated spending in Georgia for highways and roads that year.

Cost of Collecting EV Charging Station Fees

Collecting annual EV charging station registration fees would come at a cost to the state if this proposal was passed into law, at an administrative staffing level, as well as systems needed to manage registration, payment, and inspection of charging stations. Georgia's proposal for annual EV charging station fees would subject all non-residential charging



stations to inspection. Before operations start, and on an annual basis after, all charging stations would need to register with the Commissioner of Agriculture and provide details on the location of the charging station, whether electricity will be provided to vehicles for payment, the date of first operations, and the name/brand/manufacturer of the charging station.

Because this type of fee has yet to be implemented in the United States, there is little evidence available on the actual costs of collecting the revenue. The Georgia legislation does not include a fiscal note with estimates of the costs of collecting revenue. However, other legislation under consideration in Maryland, which includes charging station inspection requirements similar to those in the Georgia legislation, provides some estimates. Notably, the charging station registration fee in the Maryland legislation is set to cover the costs of inspection, but not to raise revenue.

The Maryland legislation's fiscal note estimates that in the first year of charging station inspections, the Maryland Department of Agriculture's Weights and Measures Program would expend \$636,500 [51]. This includes the full-time salaries of two technicians, the cost of required test and inspection equipment, one-time start-up costs (including vehicles), and ongoing operating expenses. Ongoing annual operating expenses are anticipated to be \$173,000, rising slightly each year. Meaning that if similarly implemented in Georgia by 2025, this EV fee policy could cost Georgia at least \$636,500 in the first year and at least \$173,000 in annual operating expenses through 2030 to ensure compliance with the EV fee is being met. It is important to note that as of June 2025 Maryland has about 65 percent as many public charging stations as Georgia—around 1,400—so Georgia's estimated collection and implementation costs would likely be higher [26] [52]. Combined with estimated revenues from the registration fees collected, the state would collect a net revenue of \$1.3 to \$3.1 million a year after the first year of implementation. However, additional costs would likely be incurred by the state government to set up payment systems for charging providers, and other administrative tasks that would further diminish the expected net revenue.

Costs to EV Drivers and Charging Providers

Assuming that the annual registration fee is levied on the charging provider, owner or operator of the charging station, the cost to the owner would be straightforward. Charging providers of free-to-charge charging stations would pay the annual \$50, and those providing electricity for a cost at charging stations would pay the annual \$250. In the case of pay-to-charge charging stations, the cost to consumers would be more complex. For charging stations with high utilization, the charging provider would be able to share the cost across many customers, including those who have access to a home charging station but



sometimes charge their EV at a public charging station. For charging stations with lesser utilization, such as those in rural areas, there are few customers to split the cost among, further exacerbating inequitable access and costs. In addition, those who do not have a private charging station at home, such as many who live in multifamily housing or rentals, would be hit harder as they rely on more costly public charging stations. Charging providers would not only have the responsibility to pay the fee but would also likely incur additional administrative costs to meet compliance requirements of paperwork and submitting payments, ultimately increasing costs for the customer as well.

Impacts of EV Charging Taxes and Fees on Policy Goals

Imposing EV charging taxes and fees impacts state policy goals beyond road funding, that are important to examine.

According to a survey conducted by the American Automobile Association (AAA), the primary reason Americans are interested in purchasing EVs is to save money on gas, see Figure 7 [53]. Other top reasons include lower maintenance and repair costs and taking advantage of tax credits and rebates. EV charging fees and taxes would strike out many of these top reasons Americans are interested in EVs, while forcing EV drivers to pay more than gas car drivers to use the same roads.



Save on Gas

Concern for the Environment

Lower Maintenance and Repair Costs

Take Advantage of Tax Credits and Rebates

Cutting Edge Technology

Expect State to Ban Gas-Powered Vehicles

Other

2%

Figure 7: Reasons for Interest in Electric Vehicles

Source: 2025 survey by American Automobile Association [53]

Decreases demand for EVs by reducing or reversing savings on fuel and maintenance costs

For many EVs, the total cost of ownership (TCO) over a typical seven-year ownership period, including the purchase of the vehicle, fuel, maintenance, and repairs, is now lower than that of comparable gasoline vehicles. The savings come from significantly lower fuel and maintenance costs [54].

However, EV charging fees and taxes can cancel out the fuel cost savings of an EV, especially in states with higher electricity prices. At the national average electricity price of 12.7 cents per kWh and the national average gas price of \$3.41, the fuel savings for the Chevrolet Equinox EV is \$948 annually over its gasoline equivalent. If adjusted for a state with higher electricity costs, such as New Hampshire, which has an electricity price of 28.7 cents per kWh and a gas price of \$3.38, the fuel savings is reduced to \$324. In contrast, in a place like Los Angeles, California with high electricity prices of 23 cents per kWh and high gas prices of \$4.64, the fuel cost savings for the EV version is \$1,133. As shown earlier in Figure 6, the average EV without home charging could pay \$591 per year in taxes and fees

⁸ Calculated using Atlas Fleet Procurement Analysis Tool [68] fuel cost per mile and assuming 12,000 miles per year and seven-year ownership period.



Revenue or Roadblock? Impacts of Electric Vehicle Charging Taxes

demonstrating that EV driver taxes and fees in excess of gasoline car-driver taxes and fees quickly erode fuel costs saved from switching to electric.

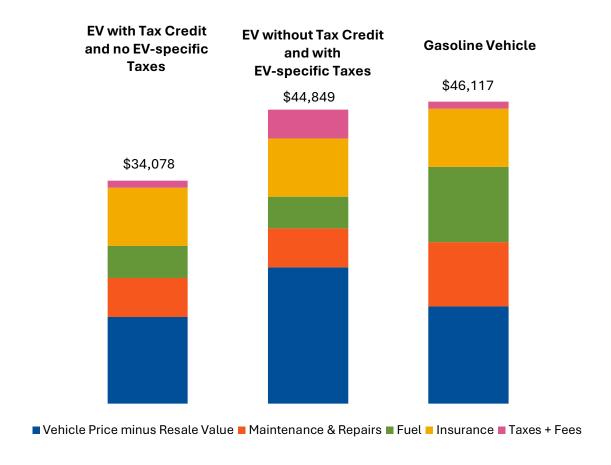
In addition, in July 2025, Congress passed a bill that includes sunsetting the \$7,500 tax credit for EVs on September 30, 2025 [55]. The removal of the federal tax credit, combined with average EV taxes at the state level and the proposed \$250 federal EV fee, shrink the total cost of ownership advantage of the EV model from \$12,039 to just \$1,268 over a typical seven year ownership period (Figure 8).⁹

⁹ Calculated using Atlas Fleet Procurement Analysis Tool [68] fuel cost per mile and assuming 12,000 miles per year and seven-year ownership period.



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Figure 8: Total Cost of Ownership for EV v. Gasoline Models of Chevrolet Equinox



Analysis with Atlas Fleet Procurement Analysis Tool. Assumes 12,000 miles per year and seven-year ownership period. Removing the \$7,500 federal EV tax credit, adding in \$190 in annual state EV taxes and the proposed \$250 federal EV fee shrinks the total cost of ownership advantage of the EV model from \$12,039 to \$1,268. The average annual state EV taxes that are added are a \$153 EV registration fee, \$25 EV charging taxes, and \$12 electricity sales / utility tax. Analysis assumes 20 percent of EV charging takes place at public chargers which are taxed at the average of the 9 states with EV charging taxes.

Inconsistent with user-pay and fair share principles

Most states with charging fees and taxes have implemented them to ensure EV drivers pay their fair share for the construction and maintenance of the roads they use. However, as shown in the analysis above, EV drivers on average end up paying considerably more than gasoline vehicle drivers in many states. In addition, proponents of charging fees and taxes claim that EV drivers are not paying at all for road construction and maintenance. In reality, EV drivers, like gasoline drivers, already pay into the 66 percent of state revenue for



highways that comes from registration fees, tolls, general funds, and other sources. Furthermore, since most proposals for taxing EV charging are aimed at public chargers, they only capture an estimated 20 percent of charging, making them truly "user-pay" only for the EV drivers without access to at-home charging. As discussed earlier, the only state to tax at-home charging, Pennsylvania, was unsuccessful in doing so due to low compliance, as many EV drivers were unaware of the requirements to pay for the tax, and it relied on self-reporting. The user-pay principle at the federal level has been significantly diminished through large transfers into the Highway Trust Fund from the general fund, which everyone, including EV drivers, already pays into.

In sum, at the state level, EV drivers pay into the 66 percent of state revenue for highways that comes from sources other than gas tax, and in 32 states, due to additional fees on EVs and EV charging, they pay more in state road funding than drivers of gasoline cars. At the federal level, EV drivers pay taxes into the general fund, which has been used to fund an increasing share of federal transportation expenditures. EV drivers do not directly pay into the federal highway trust fund through gas taxes, though federal EV fees to contribute to the highway trust fund are under discussion.

Availability of chargers and private investment in chargers decreases

Taxing EV charging, especially annual charging station fees that do not consider utilization, makes it more difficult for charging station owners to recoup their investment, particularly in rural and remote areas with lower utilization. This leads to a decrease in charging infrastructure investments, effectively constricting the geographic reach and quantity of charging infrastructure. Chargers that are not heavily used but critical to prevent range anxiety and fill infrastructure gaps are likely to be most impacted.

Many businesses provide chargers as an amenity to lure shoppers. One study by Massachusetts Institute of Technology (MIT) researchers found that opening a charging station increased annual spending at each nearby business by an average of approximately \$400 between January 2021 and June 2023 [56]. Charger fees or taxes mean that some businesses may stop providing chargers. This reduces private investment in infrastructure, requiring increased public investment to deploy a full network.

Lowers private investment in EV manufacturing and jobs

Domestic EV manufacturing has seen tremendous growth in the past few years. According to Atlas's Clean Economy Tracker, announced private investment in domestic EV and battery manufacturing since 2020 totals approximately \$189 billion across 443 facilities, providing 195,000 manufacturing jobs [57]. Cutting demand for EVs by adding taxes and fees that reduce or eliminate their cost advantage threatens these investments and jobs. In fact, in 2025, companies have canceled at least \$12 billion in planned investments in EV and battery manufacturing.



Conclusion

Highway and road funding challenges predate the advent of meaningful numbers of EVs on the road. Taxing EV charging would raise only minimal revenue while adding onto administrative costs to public agencies and stacking additional fees on EV drivers, who in 32 states already pay more than gasoline vehicle drivers in state-level road user fees. Current charging taxes across nine states affect different groups of drivers and charging station operators, consider different means of collection burdens, and overall lack consistency in approaching how to enforce the tax in similar fashion to gasoline taxes. Furthermore, taxing EV charging is inconsistent with user-pay and fair share principles, runs counter to health and environmental policies, decreases private investment in charging, lowers demand for EVs by cutting into or reversing savings on fuel and maintenance costs, and threatens the billions of dollars of private investments in domestic EV manufacturing and associated jobs. Collecting revenue from EV drivers at the state level, in absence of their contribution to gasoline taxes, will need to ensure revenue can be collected in both an equitable manner and within reasonable expectations of the average EV driver.



Appendix A: Georgia Factsheet

Georgia's EV charging tax, 2.8 cents/kWh, applies to all non-residential charging stations starting January 1, 2027, including those at government offices, workplaces, and places offering free electricity. The rate is based on the excise tax for gasoline. The state House also proposed an annual charging station registration fee but currently has little support and is not considered in estimates below.

- Estimated Revenue: \$5.3 million if implemented by 2025 and \$21.2 million by 2030
 - o Accounts for less than 0.4 percent of highway spending in 2030
- **Cost to Collect**: No provision for collection and administrative costs. Law requires the state to finance an unspecified number of inspectors and equipment for annual inspections of every public charging station, as well as clerical help to enforce the tax. Compliance will require installation of metering equipment. The state is spending \$350,000 to study on how best to implement the tax.
- Estimated Cost to EV Drivers: \$22 per year if the driver has access to a home charger and \$122 per year if the driver does not have access to a home charger.

✓ Proposed Federal EV Registration Fee GA Electricity Sales/Use Tax ■ GA EV Charging Tax ■ GA EV Registration Fee ■ Federal Gas Tax GA Gas Tax \$672 \$510 \$250 \$90 \$251 \$112 \$18 \$93 \$22 \$220 \$220 \$158 **BEV** without Home BEV with Home Charger Gasoline Vehicle

Figure 9. Average Taxes and Fees for Electric Vehicles vs Gasoline Vehicles in GA

Assumes vehicles travel 12,000 miles/year, BEVs consume 4,000 kWh/year of electricity and have an energy efficiency of 3 kWh/mile, and gasoline vehicles have a fuel efficiency of 23.7 mpg. Assumes those with access to home charging use taxable public chargers for 20 percent of their charging and those without access to home charging use taxable public chargers for 100 percent of their charging. PHEVs are not considered.



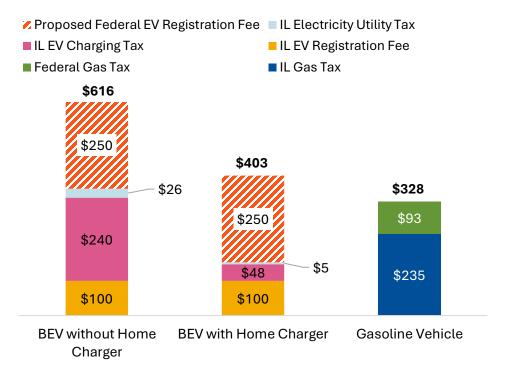
Charger

Appendix B: Illinois Factsheet

Illinois's failed proposal for an EV charging tax of 6.0 cents/kWh would have applied to all charging services offered for payment. If passed, the tax would have gone into effect July 1, 2025. The measure was part of a larger transportation funding plan but failed to pass in the House.

- Estimated Revenue: \$9.9 million by 2025 and \$39.2 million by 2030
 - o Accounts for less than 0.5 percent of highway spending in 2030
- Cost to Collect: No provision for collection and administrative costs. Tax language required charging station power providers to register with the state for certification.
 Compliance would likely have required the installation of metering equipment.
- **Estimated Cost to EV Drivers**: \$48 per year if the driver has access to a home charger and \$240 per year if the driver does not have access to a home charger.

Figure 10. Average Taxes and Fees for Electric Vehicles vs Gasoline Vehicles in IL



Assumes vehicles travel 12,000 miles/year, BEVs consume 4,000 kWh/year of electricity and have an energy efficiency of 3 kWh/mile, and gasoline vehicles have a fuel efficiency of 23.7 mpg. Assumes those with access to home charging use taxable public chargers for 20 percent of their charging and those without access to home charging use taxable public chargers for 100 percent of their charging. PHEVs are not considered.



Appendix C: Kentucky Factsheet

Kentucky's EV charging tax, 3.2 cents/kWh, applies to all public charging stations with a charging capacity greater than 20 kW (DCFC chargers). Originally at 3.0 cents/kWh starting in 2023, the tax amount has since increased, and starting on January 1st, 2024, Level 1 and Level 2 charging stations have been excluded from taxation.

- Estimated Revenue: \$0.8 million by 2025 and \$3.0 million by 2030
 - o Accounts for less than 0.1 percent of highway spending in 2030
- Cost to Collect: No provision for collection and administrative costs. The charging station power dealer, owner or operator, is responsible for collecting and paying the tax from electricity sales at EV charging stations, regardless of whether payment is accepted at the station or not. Compliance likely requires the installation of metering equipment.
- Estimated Cost to EV Drivers: \$26 per year if the driver has access to a home charger and \$128 per year if the driver does not have access to a home charger.

Proposed Federal EV Registration Fee KY Electricity Sales/Use Tax KY EV Charging Tax KY EV Registration Fee ■ Federal Gas Tax ■ KY Gas Tax \$638 \$250 \$429 \$134 \$238 \$93 \$128 \$27 \$26 \$145 \$126 \$126

Figure 11. Average Taxes and Fees for Electric Vehicles vs Gasoline Vehicles in KY

Assumes vehicles travel 12,000 miles/year, BEVs consume 4,000 kWh/year of electricity and have an energy efficiency of 3 kWh/mile, and gasoline vehicles have a fuel efficiency of 23.7 mpg. Assumes those with access to home charging use taxable public chargers for 20 percent of their charging and those without access to home charging use taxable public chargers for 100 percent of their charging. PHEVs are not considered.

BEV with Home Charger

Gasoline Vehicle



BEV without Home

Charger

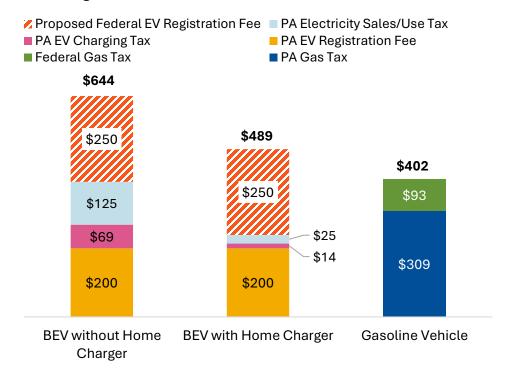
Appendix D: Pennsylvania Factsheet

Pennsylvania's EV charging tax, 1.72 cents/kWh, applies to non-residential charging stations, regardless of whether electricity is provided for payment or not. Includes public Level 1 and Level 2 chargers. Tax rates are adjusted annually based on the equivalent energy content of motor fuels. The tax went into effect on January 1, 1999. As of January 1, 2025, residential charging has been exempted.

- Estimated Revenue: \$2.1 million by 2025 and \$8.0 million by 2030
 - o Accounts for less than 0.1 percent of highway spending in 2030
- Cost to Collect: No provision for collection and administrative costs. The owner or operator of the charging station is responsible for collecting and paying the tax.

 Compliance likely requires the installation of metering equipment.
- Estimated Cost to EV Drivers: \$14 per year if the driver has access to a home charger and \$69 per year if the driver does not have access to a home charger.

Figure 12. Average Taxes and Fees for Electric Vehicles vs Gasoline Vehicles in PA



Assumes vehicles travel 12,000 miles/year, BEVs consume 4,000 kWh/year of electricity and have an energy efficiency of 3 kWh/mile, and gasoline vehicles have a fuel efficiency of 23.7 mpg. Assumes those with access to home charging use taxable public chargers for 20 percent of their charging and those without access to home charging use taxable public chargers for 100 percent of their charging. PHEVs are not considered.

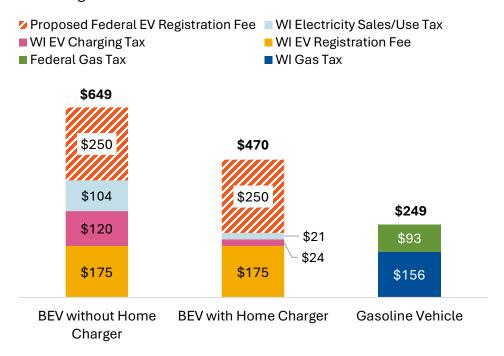


Appendix E: Wisconsin Factsheet

Wisconsin's EV charging tax, 3.0 cents/kWh, applies to all non-residential charging and exempts legacy Level 1 and Level 2 chargers (before March 22, 2024). The tax has been in effect since January 1, 2025.

- Estimated Revenue: \$1.6 million by 2025 and \$3.9 million by 2030
 - o Accounts for less than 0.15 percent of highway spending in 2030
- Cost to Collect: Initial administrative and inspection equipment costs of \$1.2 million, plus annual costs of \$0.5 million to cover salaries and other operating expenses of revenue agents, auditors, and inspectors. An owner or operator of a public charger, regardless of whether or not a consumer pays for electricity or not, will be responsible for collecting and submitting the tax. Compliance likely requires the installation of metering equipment.
- Estimated Cost to EV Drivers: \$24 per year if the driver has access to a home charger and \$120 per year if the driver does not have access to a home charger.

Figure 13. Average Taxes and Fees for Electric Vehicles vs Gasoline Vehicles in WI



Assumes vehicles travel 12,000 miles/year, BEVs consume 4,000 kWh/year of electricity and have an energy efficiency of 3 kWh/mile, and gasoline vehicles have a fuel efficiency of 23.7 mpg. Assumes those with access to home charging use taxable public chargers for 20 percent of their charging and those without access to home charging use taxable public chargers for 100 percent of their charging. PHEVs are not considered.



Appendix F: Minnesota Factsheet

In June 2025, the Minnesota legislature passed legislation that creates a higher EV registration fee, a new PHEV fee, and an energy-based charging tax [58]. These taxes and fees make Minnesota the state with the highest EV penalty in the United States, at \$436 per year.

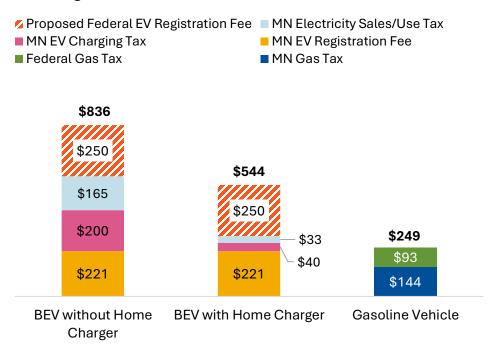
Minnesota's EV charging tax, 0.5 cents per kwh, applies to public fast chargers with a capacity over 50 kilowatts (DCFC chargers) and takes effect in 2027. Chargers in operation before October 1, 2023, are exempt until 2032.

- Estimated Revenue: \$3.5 million in 2025 and \$13.8 million by 2030.
 - o Accounts for less than 0.28 percent of highway spending in 2030.
- Cost to Collect: No provision for collection and administrative costs. The owner or operator of the charging station is responsible for collecting and paying the tax. Charging stations must use a metering system on or after October 25, 2025, therefore metering costs are likely to be incurred by station operators.
- Estimated Cost to EV Drivers: \$40 per year if the driver has access to a home charger and \$200 per year if the driver does not have access to a home charger.

The new EV fee is 0.5 percent of the vehicle's MSRP for BEVs and 0.25 percent of the vehicle's MSRP for PHEVs. For example, for a Tesla Model 3, the annual EV fee in year one is \$212 (0.5 percent of the \$42,490 MSRP). Over time the MSRP used to calculate the EV fee is adjusted downward, and once the vehicle reaches 10 years of age, the fee is levied at 10 percent, with a minimum fee of \$150.



Figure 14. Average Taxes and Fees for Electric Vehicles vs Gasoline Vehicles in MN



Assumes vehicles travel 12,000 miles per year, BEVs consume 4,000 kWh of electricity per year and have an energy efficiency of 3 kWh per mile, and gasoline vehicles have a fuel efficiency of 23.7 mpg. Assumes those with access to home charging use public chargers, where taxes would apply, for 20 percent of their charging needs and those without access to home charging use public chargers for 100 percent of their charging needs. PHEVs are not considered.



Appendix G: Methodology for Revenue and Costs of Charging Fees and Taxes

Acronyms:

- LDV = light duty vehicle
- EV = electric vehicle
- BEV = battery electric vehicle
- PHEV = plug-in hybrid electric vehicle
- VMT = vehicle miles traveled

General Assumptions and Sources:

- Number of BEVs and PHEVs in each state for 2023 is from U.S. Department of Energy Alternative Fuels Data Center (AFDC) [59].
- The number of EVs and PHEVs in each state for 2025 and 2030 are estimated by using U.S. Energy Information Administration's (EIA) <u>Annual Energy Outlook</u> 2025 national projections for vehicle stock, and calculating state level EV stock by assuming that the proportion of EVs to all other vehicles in a state in 2025 and 2030 is the same as the proportion in 2023 [48].
- It is assumed BEVs and PHEVs drive the same average number of miles as the average vehicle in the state, 12,000 miles.
- State highway spending in 2025 and 2030 is estimated using the FORECAST.ETC function in excel and with data from the FHWA's Table SF-2 [12], 'State Disbursements for Highways' for years 2020-2023.

1. Annual Revenue from Charging Station Registration Fees

Assumptions and Sources:

- Number of stations calculated using EV projection numbers (both BEV and PHEV) as an input to the AFDC's <u>EVI-Pro Lite</u> tool. Only number adjusted in the additional inputs is the share of PHEV to total EVs, using projections calculated from EIA [49].
- It is assumed only Level 2 and DCFC charging stations/ports are covered.
- It is assumed that Level 2 charging stations have anywhere from 1-4 ports per station, while DCFC charging stations have 1-2, therefore results represent a range from one port per charger to the max number per charger type.

Calculation

$$R = T_S \times N_S$$



per station type if different fees are levied on different charging station types (Ex. \$50 for private stations and \$250 for public stations)

- T_S = dollars ('State A'annual registration fee for charging station)
- N_S = (number of stations)

2. Annual Revenue and Driver Costs from per kWh Taxes

Assumptions and Sources:

- Assume 0.4% annual VMT growth based on FHWA forecasts [60]
- Latest state VMT data is from 2023 (<u>Table VM-2 Highway Statistics 2023 Policy | Federal Highway Administration</u>) [12]
- Assume all public chargers in states with energy-based charging taxes are taxed. Because of the variety of scope for the different state legislation, Atlas uses this as a simplifying assumption. In reality, some of the nine states with these taxes tax all public Level 2 chargers and DC fast chargers, some tax only newer Level 2 chargers and DC fast chargers, and some only tax DC fast chargers.

Revenue Calculation:

$$R = M_{EV} \times P_c \times kWh_m \times T_k$$

- $M_{EV} =$ (Total electric vehicle miles driven calculated based on state registration data)
- $M_{EV} = (\% \text{ LDVs in state that are EVs * total state VMT}) + (\% \text{ LDVs in state that are PHEVs * % PHEV miles that are electric * total state VMT})$
- $Total\ state\ VMT\ in\ 2025 = Total\ state\ VMT\ in\ 2023 \times 1.004^{\circ}(2025 2023)$
- $Total\ state\ VMT\ in\ 2030 = Total\ state\ VMT\ in\ 2023\ \times 1.004^{\circ}(2030-2023)$
- $P_C = (\% \text{ of energy for EVs is from non residential charging})=100\% \text{ for drivers}$ with no home charger or 20% for drivers with a home charger [61]
- $kWh_m = \frac{kWh}{mi}$ (Average electricity consumption per mile for EVs) = $1/(\frac{mi}{kWh})$ = 0.33 [62]
- $T_k = \text{dollars}$ (State tax rate per kWh,)

Cost Calculation:

$$C = T_k \times kWh_m \times VMTv$$

VMT = vehicle miles traveled per year for the average vehicle



Appendix H: Table of State EV and Charging Fees and Taxes

State	State Gas Tax (\$/gal)	EV Fee	PHEV Fee	HEV Fee	Charging Tax (c/kWh)	Sales/Use/ General Tax applicable to EV charging	Electricity/ Utility Tax	EV Penalty
AL	\$0.300	\$203	\$103		0.0	4.00%	0.00%	110.30
AK	\$0.080	\$0	\$0		0.0	0.00%	0.00%	-40.51
ΑZ	\$0.180	\$0	\$0		0.0	5.60%	0.00%	16.38
AR	\$0.247	\$200	\$100	\$50	0.0	6.50%	0.00%	199.72
CA	\$0.579	\$100	\$0		0.0	0.00%	0.00%	-193.16
СО	\$0.237	\$69	\$65		0.0	2.90%	0.00%	14.20
СТ	\$0.250	\$0	\$0		0.0	0.00%	0.00%	-126.58
DE	\$0.230	\$0	\$0		0.0	0.00%	0.00%	-116.46
DC	\$0.235	\$0	\$0		0.0	6.00%	0.00%	-3.79
FL	\$0.407	\$0	\$0		0.0	4.35%	2.60%	-108.92
GA	\$0.312	\$220	\$220		2.8	4.00%	0.00%	231.47
н	\$0.160	\$50	\$50		0.0	0.00%	0.00%	-31.01
ID	\$0.330	\$140	\$75		0.0	0.00%	0.00%	-27.09
IL	\$0.465	\$100	\$100		0.0	0.00%	5.00%	-108.73
IN	\$0.350	\$221	\$74	\$74	0.0	7.00%	0.00%	178.18
IA	\$0.310	\$130	\$65		2.6	0.00%	0.00%	77.04
KS	\$0.240	\$100	\$50	\$50	0.0	6.50%	0.00%	74.68
KY	\$0.287	\$126	\$126	\$60	3.2	6.00%	0.00%	189.48
LA	\$0.200	\$110	\$60		0.0	4.45%	0.00%	94.17
ME	\$0.300	\$0	\$0		0.0	5.50%	0.00%	-46.30
MD	\$0.470	\$125	\$100		0.0	6.00%	0.00%	2.23
MA	\$0.240	\$0	\$0		0.0	6.25%	0.00%	-1.52
MI	\$0.286	\$160	\$60		0.0	6.00%	0.00%	130.39



State	State Gas Tax (\$/gal)	EV Fee	PHEV Fee	HEV Fee	Charging Tax (c/kWh)	Sales/Use/ General Tax applicable to EV charging	Electricity/ Utility Tax	EV Penalty
MN ¹⁰	\$0.285	\$212	\$101		5.0	6.88%	0.00%	403.26
MS	\$0.184	\$150	\$75	\$75	0.0	7.00%	0.00%	191.24
МО	\$0.245	\$135	\$68		0.0	4.23%	0.00%	92.17
MT	\$0.330	\$130	\$70		3.0	0.00%	0.00%	82.91
NE	\$0.299	\$150	\$75		3.0	0.00%	0.00%	118.61
NV	\$0.238	\$0	\$0		0.0	0.00%	0.00%	-120.53
NH	\$0.238	\$100	\$50		0.0	0.00%	0.00%	-20.63
NJ	\$0.371	\$250	\$0		0.0	6.63%	0.00%	189.45
NM	\$0.170	\$0	\$0		0.0	5.00%	0.00%	25.92
NY	\$0.262	\$0	\$0		0.0	4.00%	0.00%	-55.61
NC	\$0.408	\$215	\$107		0.0	7.00%	0.00%	142.57
ND	\$0.230	\$120	\$50		0.0	0.00%	0.00%	3.54
ОН	\$0.385	\$200	\$150	\$100	0.0	0.00%	0.00%	5.06
ОК	\$0.200	\$110	\$82		3.0	4.50%	0.00%	215.13
OR	\$0.380	\$158	\$78	\$78	0.0	0.00%	0.00%	-34.41
PA	\$0.611	\$200	\$50		1.7	6.00%	0.00%	74.63
RI	\$0.370	\$0	\$0		0.0	0.00%	0.00%	-187.39
sc	\$0.280	\$60	\$60	\$30	0.0	6.00%	0.00%	33.43
SD	\$0.300	\$50	\$50		0.0	4.20%	0.00%	-34.70

¹⁰ The Minnesota legislature passed a higher EV registration fee, a new PHEV fee, and an energy-based charging tax in June 2025. The new EV fee is charged annually and is based on each vehicle's MSRP and age, with a minimum fee of \$150 in 2026 and a minimum of \$100 from July 2027 on. The EV fee is 0.5 percent of the vehicle's MSRP in year one and 0.5 percent of 95 percent of the vehicle's MSRP in year 2, declining each year until it reaches 0.5 percent of 10 percent of MSRP in year 10 and beyond. For example, for a Tesla Model 3, the annual EV fee in year one is \$212 (0.5 percent of the \$42,490 MSRP, and \$201 in year two (\$212*0.95). The PHEV fee functions similarly but is 0.25 percent of MSRP rather than 0.5 percent and is set at a minimum of \$75 in 2026 and \$50 from July 2027 on. For example, annual PHEV fee for a Ford Escape Plug-in Hybrid in year one is \$101 (0.25 percent of the \$40,500 MSRP) and \$96 in year two (\$101*0.95). The energy-based charging tax is 0.5 cents per kwh starting in 2027.



State	State Gas Tax (\$/gal)	EV Fee	PHEV Fee	HEV Fee	Charging Tax (c/kWh)	Sales/Use/ General Tax applicable to EV charging	Electricity/ Utility Tax	EV Penalty
TN	\$0.260	\$200	\$100	\$100	0.0	7.00%	0.00%	171.95
TX	\$0.200	\$200	\$200		0.0	6.25%	0.00%	218.73
UT	\$0.300	\$139	\$60	\$23	7.0	0.00%	0.00%	266.60
VT	\$0.305	\$89	\$45		0.0	6.00%	0.00%	25.97
VA	\$0.298	\$128	\$128		0.0	0.00%	0.00%	-22.75
WA	\$0.494	\$225	\$225	\$75	0.0	0.00%	0.00%	-25.13
wv	\$0.372	\$200	\$100		0.0	6.00%	0.00%	126.85
WI	\$0.309	\$175	\$75	\$75	3.0	5.00%	0.00%	212.54
WY	\$0.240	\$200	\$200		0.0	4.00%	0.00%	137.68

The table shows annualized fees that are currently in effect or will be in effect for light-duty vehicles. Outside of the gas tax, these fees and taxes are "additional" relative to the fee paid for the average gasoline light-duty vehicle in the state. State gas tax, EV/PHEV/HEV fee, and charging tax data from June 2025. All other data in table is as of November 2023.



Appendix I: EV Penalty Calculation

Below are the formulas used to calculate the EV Penalty.

$$Total Taxes \left(\frac{\$}{kWh}\right)$$

$$= \frac{BEV_Fee \left(\frac{\$}{Year}\right)}{Estimated_energy_use \left(\frac{kWh}{Year}\right)} + Energy_Use_Fee \left(\frac{\$}{kWh}\right)$$

$$+ \left(Electrify_America_Fee \left(\frac{\$}{kWh}\right) \times Sales_Tax \left(\%\right)\right)$$

$$+ \left(EIA_Electricity_Rate \left(\frac{\$}{kWh}\right) \times Electricity_Tax \left(\%\right)\right)$$

$$Total\ EV\ Taxes\ \left(\frac{\$}{mi}\right) = \frac{Total_Taxes\ (\frac{\$}{kWh})}{EV_Fuel_Economy(\frac{mi}{kWh})}$$

$$\begin{split} &EV\ Penalty\ (\$) \\ &= \left(Total_EV_Taxes\ \left(\frac{\$}{mi}\right) \right. \\ &- State_Gasoline_Tax\ \left(\frac{\$}{mi}\right) \right) x\ Annual_Vehicle_Miles_Traveled \end{split}$$



References

- [1] FHWA, "Highway Statistics 2023, Table REC-C, https://www.fhwa.dot.gov/policyinformation/statistics/2023/recc.cfm," Accessed June 4, 2025.
- [2] "J. Kile, "Testimony Before the Committee on Finance, United States Senate: Options for Funding and Financing Highway Spending," Congressional Budget Office, 18 May 2021. [Online]. Available: https://www.cbo.gov/publication/57138. [Accessed 27 July 2023]".
- [3] "U.S. Department of Transportation, Federal Highway Administration, "Highway Statistics 2022: Status of the Highway Trust Fund, Fiscal Years 1957-2022," October 2023. [Online]. Available: https://www.fhwa.dot.gov/policyinformation/statistics/2022/fe210.cfm".
- [4] Shirley, Chad, "The Status of the Highway Trust Fund: 2023 Update," Congressional Budget Office, 2023.
- [5] Federal Highway Administration, "Funding Federal Aid Highways," 2017. [Online]. Available: https://www.fhwa.dot.gov/policy/olsp/fundingfederalaid/07.cfm.
- [6] Federal Highway Administration, "Status of the Highway Trust Fund, 1957-2022," 2022. https://www.fhwa.dot.gov/policyinformation/statistics/2022/fe210.cfm.
- [7] Eno Center for Transportation, "Highway Trust Fund Ran \$26.7 Billion User-Pay Deficit in FY 2024," 2024. https://enotrans.org/article/highway-trust-fund-ran-26-7-billion-user-pay-deficit-in-fy-2024/.
- [8] D. Cooke, "The Truth Is Out There: The Cost of Roads Is Bankrupting the Highway Trust Fund, Not Electric Vehicles," Union of Concerned Scientists, 29 April 2025. [Online]. Available: https://blog.ucs.org/dave-cooke/the-truth-is-out-there-the-cost-of-roads-is-bankrupting-the-highway-trust-fund-not-electric-vehicles/.
- [9] Federal Highway Administration, "Revenues Used by States for Highways 2022," [Online]. Available: https://www.fhwa.dot.gov/policyinformation/statistics/2022/sf1.cfm.
- [10] Consumer Affairs, "Fuel taxes by state," May 2025. [Online]. Available: https://www.consumeraffairs.com/automotive/fuel-taxes-by-state.html.



- [11] Atlas Public Policy, "Closing the Road-Funding Gap: 2024 Update," 2024. [Online]. Available: https://atlaspolicy.com/closing-the-road-funding-gap-2024-update/.
- [12] Federal Highway Administration, "Highway Statistics," 2023. [Online]. Available: https://www.fhwa.dot.gov/policyinformation/statistics/2023/.
- [13] M. Khatib, "EV drivers in 36 states pay a surplus of fees each year," Atlas Public Policy, 29 January 2024. [Online]. Available: https://www.atlasevhub.com/weekly-digest/ev-drivers-in-36-states-pay-a-surplus-of-fees-each-year/.
- [14] American Petroleum Institute, "Notes to State Motor Fuel Excise and Other Taxes," 2022. [Online]. Available: https://www.api.org/-/media/files/statistics/state-motor-fuel-taxes-charts-january-2022.pdf.
- [15] Atlas Public Policy, "State Policy Dashboard," Atlas Public Policy, [Online]. Available: https://www.atlasevhub.com/public-policy/state-policy-dashboard/. [Accessed 9 July 2025].
- [16] M. Schultz and W. A. Harper, "Utah Code Electric Vehicle Charging Tax," 1 January 2024.
 [Online]. Available: https://le.utah.gov/xcode/Title59/Chapter30/C59-30-P1_2023050320240101.pdf. [Accessed 8 July 2025].
- [17] G. Rothman, C. Dush and J. Ward, "Senate Bill No. 656," 1 May 2023. [Online]. Available: https://www.palegis.us/legislation/bills/text/HTM/2023/0/SB0656/PN1811. [Accessed 7 July 2025].
- [18] Iowa House Ways and Means Committee, "Iowa House Bill 767," LegiScan, 16 May 2019. [Online]. Available: https://legiscan.com/IA/sponsors/HF767/2019. [Accessed 30 July 2025].
- [19] S. Hilton, S. Holcomb, R. Jasperse, T. Jones, V. Smith and R. Robertson, "GA HB652," Bill Track 50, 13 May 2025. [Online]. Available: https://www.billtrack50.com/billdetail/1848241. [Accessed 30 July 2025].
- [20] J. Petrie, B. Reed, S. Baker, L. Bechler, K. Fleming, C. Fugate, R. Heath, A. Koenig, C. Massey, M. Meredith, J. Nemes, D. Osborne, S. Rudy, W. Thomas and J. Tipton, "House Bill 8," Kentucky General Assembly, 14 April 2022. [Online]. Available: https://apps.legislature.ky.gov/record/22rs/hb8.html. [Accessed 30 July 2025].



- [21] D. Loge, "Montana House Bill 55," LegiScan, 19 May 2023. [Online]. Available: https://legiscan.com/MT/bill/HB55/2023. [Accessed 30 July 2025].
- [22] K. Hilbert, Z. Taylor, D. Roberts, S. Fetgatter, A. Frix, T. Burns, B. Hill, T. Marti, J. Talley, B. Boles, A. Moore, D. Pae, R. Manger, D. Davis, J. Humphrey and D. Rader, "Oklahoma House Bill 2234," LegiScan, 22 April 2021. [Online]. Available: https://legiscan.com/OK/bill/HB2234/2021. [Accessed 30 July 2025].
- [23] Wisconsin Senate, "Relating to: exemptions from public utility regulation regarding electric vehicle charging stations, installation and operation of electric vehicle charging stations by state agencies or local governmental units, and imposing an excise tax on electric veh," Gov Hawk, 21 March 2024. [Online]. Available: https://track.govhawk.com/public/bills/1816304. [Accessed 31 July 2025].
- [24] L. Linehan, "Legislative Bill 1317," 23 April 2024. [Online]. Available: https://nebraskalegislature.gov/FloorDocs/108/PDF/Slip/LB1317.pdf. [Accessed 31 July 2025].
- [25] R. Villivalam, "SB3651 103rd General Assembly (2023-2024)," State of Illinois, 9 February 2024. [Online]. Available:
 https://www.ilga.gov/Legislation/BillStatus/FullText?GAID=17&DocNum=3651&DocTypeID=SB&LegId=153597&SessionID=112. [Accessed 3 July 2025].
- [26] Joint Office of Energy and Transportation, "Electric Vehicle Charging Infrastructure Growth," [Online]. Available: https://driveelectric.gov/stations-growth. [Accessed 6 August 2025].
- [27] Atlas Public Policy; The Eastern Transportation Coalition, "Charging the Charge Considerations for EV Charging PerkWh Tax Policy," 2024.
- [28] Wisconsin State Legislature, "Fiscal Estimates and Reports SB791," 2023. [Online]. Available: https://docs.legis.wisconsin.gov/2023/related/fe/sb791. [Accessed 9 July 2025].
- [29] Atlas Public Policy, "Closing the Road-Funding Gap: 2024 Update," 2024. [Online]. Available: https://atlaspolicy.com/closing-the-road-funding-gap-2024-update/.
- [30] S. Gooch, B. Cowsert, L. Walker III, D. Lucas and J. Anavitarte, "Senate Bill 146," 1 July 2023. [Online]. Available: https://www.legis.ga.gov/api/legislation/document/20232024/214318. [Accessed 3 July 2025].



- [31] C. Groves, "Georgia's plan to tax electricity from EV charging stations hits a roadblock," AJC Politics, 10 May 2025. [Online]. Available: https://www.ajc.com/politics/a-bill-awaiting-kemps-approval-could-delay-a-tax-on-ev-charging-stations/NOQB2366XJGSDPBUPIMQMVNSWY/. [Accessed 3 July 2025].
- [32] Kentucky General Assembly, "House Bill 8," 14 April 2022. [Online]. Available: https://apps.legislature.ky.gov/recorddocuments/bill/22RS/hb8/bill.pdf. [Accessed 7 July 2025].
- [33] Kentucky Department of Revenue, "Electric Vehicle Power Excise Tax," [Online]. Available: https://revenue.ky.gov/Business/Pages/Electric-Vehicle-Power-Excise-Tax.aspx. [Accessed 7 July 2025].
- [34] J. Petrie, "Commonwealth of Kentucky Fiscal Note Statement House Bill Number 8," 2022. [Online]. Available: https://apps.legislature.ky.gov/recorddocuments/note/22RS/hb8/FN.pdf. [Accessed 7 July 2025].
- [35] "Road User Charge for Electric and Plug-In Hybrid Vehicles," Commonwealth of Pennsylvania, [Online]. Available: https://www.pa.gov/agencies/dmv/vehicle-services/road-user-charge.html. [Accessed 7 July 2025].
- [36] State of Wisconsin Legislature, "2023 Senate Bill 791," 21 March 2024. [Online]. Available: https://track.govhawk.com/public/bills/1816304#. [Accessed 7 July 2025].
- [37] B. Lang, "Senate Bill 791/Assembly Bill 846: Electric Vehicle Infrastructure Program and Excise Tax," 11 January 2024. [Online]. Available: https://docs.legis.wisconsin.gov/misc/lfb/bill_summaries/2023_25/0791_sb_791_electric_vehicle_infrastructure_program_and_excise_tax_1_11_24.pdf. [Accessed 7 July 2025].
- [38] M. Schultz, "Fiscal Note H.B. 301," 22 March 2023. [Online]. Available: https://legiscan.com/UT/supplement/HB0301/id/297379. [Accessed 8 July 2025].
- [39] D. Loge, "Fiscal Note 2025 Biennium," 28 April 2023. [Online]. Available: https://legiscan.com/MT/supplement/HB55/id/364958. [Accessed 8 July 2025].
- [40] S. Glaser, "Estimate of Fiscal Impact LB 505," 7 March 2023. [Online]. Available: https://nebraskalegislature.gov/FloorDocs/108/PDF/FN/LB505_20230307-122225.pdf. [Accessed 8 July 2025].



- [41] Hilbert, "Bill Summary HB 2234," 1 March 2021. [Online]. Available: https://www.oklegislature.gov/cf_pdf/2021-22%20SUPPORT%20DOCUMENTS/BILLSUM/House/HB2234%20CS%20BILLSUM.PDF. [Accessed 8 July 2025].
- [42] Alternative Fuels Data Center, "Laws and Incentives by State Washington," United States Department of Energy, 2021. [Online]. Available: https://afdc.energy.gov/laws/12614.
- [43] Legiscan, "Colorado Senate Bill 208," 2024. [Online]. Available: https://legiscan.com/CO/bill/SB208/2024.
- [44] New Hampshire Senate, "SB 150-FN As Introduced," 2025. [Online]. Available: https://gc.nh.gov/bill_status/legacy/bs2016/billText.aspx?sy=2025&id=986&txtFormat=htm l.
- [45] R. Jasperse, "Georgia House Bill 883," Georgia General Assembly, 31 March 2025. [Online]. Available: https://www.legis.ga.gov/legislation/71886. [Accessed 9 September 2025].
- [46] S. Dunlap, "Georgia lawmakers send new electric vehicle charging tax plan to governor," Georgia Recorder, 27 March 2023. [Online]. Available: https://georgiarecorder.com/briefs/georgia-lawmakers-send-new-electric-vehicle-charging-tax-plan-to-governor/.
- [47] M.-L. Arlt and N. Astier, "Where can Drivers Charge Their Electric Vehicle for Free in the," International Association for Energy Economics, 2020.
- [48] U.S. Energy Information Administration, "Annual Energy Outlook 2025," U.S. Energy Information Administration, 2025. [Online]. Available: https://www.eia.gov/outlooks/aeo/. [Accessed 20 July 2025].
- [49] Alternative Fuels Data Center, "EVI-X: Electric Vehicle Infrastructure Toolbox," United States Department of Energy, [Online]. Available: https://afdc.energy.gov/evi-x-toolbox#/evi-proports?region_type=state&charging-state=GA&vehicles=88600&phev-support=half&res-access=80&phev-share=22&scenario=2&pev-car=40&pev-suv=35&pev-pickup=21&pev-van=4.
- [50] U.S. Energy Information Administration, "Annual Energy Outlook 2025: Table 39. Light-Duty Vehicle Stock by Technology Type," 2025. [Online]. Available: https://www.eia.gov/outlooks/aeo/data/browser/#/?id=49-AEO2025®ion=0-0&cases=ref2025&start=2023&end=2033&f=A&sourcekey=0. [Accessed 12 June 2025].



- [51] Department of Legislative Services, "Fiscal and Policy Note on Senate Bill 913 First Reader (Maryland General Assembly 2025 Session)," 2025. [Online]. Available: https://mgaleg.maryland.gov/2025RS/fnotes/bil_0003/sb0913.pdf.
- [52] Alternative Fuels Data Center, "Alternative Fueling Station Locator," United States

 Department of Energy, [Online]. Available: https://afdc.energy.gov/stations#/find/nearest.
- [53] American Automobile Association, ""Americans Slow to Adopt Electric Vehicles"," June 3, 2025. [Online]. Available: https://newsroom.aaa.com/2025/06/aaa-ev-survey/.
- [54] N. Nigro and D. Wilkins, "Comparing the Total Cost of Ownership of the Most Popular Vehicles in the United States: 2025 Update," Atlas Public Policy, July 2025. [Online]. Available: https://atlaspolicy.com/comparing-the-total-cost-of-ownership-of-the-most-popular-vehicles-in-the-united-states-2025-update/.
- [55] J. Arrington, "H.R.1 One Big Beautiful Bill Act," House Budget Committee, 1 July 205. [Online]. Available: https://www.congress.gov/bill/119th-congress/house-bill/1/text. [Accessed 10 July 2025].
- [56] Z. Winn, "Study: EV charging stations boost spending at nearby businesses," MIT News, 4 September 2024. [Online]. Available: https://news.mit.edu/2024/study-ev-charging-stations-boost-nearby-business-spending-0904. [Accessed 30 July 2025].
- [57] Atlas Public Policy, "Clean Economy Tracker," [Online]. Available: cleaneconomytracker.org.
- [58] M. G. Assembly, "House Bill 14 as codified in Minnesota statute 168.013 subdivision 1a," 2025. [Online]. Available: https://legiscan.com/MN/bill/HF14/2025/X1.
- [59] Alternative Fuels Data Center, "Vehicle Registration Counts by State," U.S. Department of Energy, 2023. [Online]. Available: https://afdc.energy.gov/vehicle-registration. [Accessed 12 September 2025].
- [60] Office of Highway Policy Information, "2024 FHWA Forecasts of Vehicle Miles Traveled (VMT)," U.S. Department of Transportation Federal Highway Administration, 2024. [Online]. Available: https://www.fhwa.dot.gov/policyinformation/tables/vmt/vmt_forecast_sum.cfm. [Accessed 20 July 2025].



- [61] E. Wood, B. Borlaug, M. Moniot, D.-Y. Lee, Y. Ge, F. Yang and Z. Liu, "The 2030 National Charging Network," 2024. [Online]. Available: https://docs.nrel.gov/docs/fy23osti/85654.pdf. [Accessed 20 July 2025].
- [62] Alternative Fuels Data Center, "Data Sources and Assumptions for the Electricity Sources and Fuel-Cycle Emissions Tool," U.S. Department of Energy, [Online]. Available: https://afdc.energy.gov/vehicles/electric-emissions-sources. [Accessed 20 July 2025].
- [63] U.S. Department of Energy, "Electric Vehicle Charging Stations," Alternative Fuels Data Center, [Online]. Available: https://afdc.energy.gov/fuels/electricity-stations. [Accessed 16 July 2025].
- [64] K. Hunter, "Georgia postponed a tax on charging electric vehicles. What it means for residents," Ledger-Enquirer, 16 May 2024. [Online]. Available: https://www.ledger-enquirer.com/news/politics-government/article288504542.html. [Accessed 30 July 2025].
- [65] C. Berninger, "Minnesota Legislature Adopts Punitive New Electric Vehicle Fees," 24 July 2025. [Online]. Available: https://driveelectricmn.org/minnesota-legislature-adopts-punitive-new-electric-vehicle-fees/.
- [66] EKM Metering, "Metering Packages," [Online]. Available: https://www.ekmmetering.com/pages/hardware. [Accessed 2025].
- [67] Angi, "How Much Does An Electrician Cost?," [Online]. Available: https://www.angi.com/articles/how-much-does-it-cost-hire-electrician.htm. [Accessed 2025].
- [68] Atlas Public Policy, "Fleet Procurement Analysis Tool," [Online]. Available: https://www.atlasevhub.com/resource/fleet-procurement-analysis-tool/. [Accessed 2025].



