



TRANSPORTATION & CLIMATE INITIATIVE

Of the Northeast and Mid-Atlantic States

MENU OF PLUG-IN ELECTRIC VEHICLE INCENTIVES

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GEORGETOWN CLIMATE CENTER
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Menu of Plug-In Electric Vehicle Incentives

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The Transportation and Climate Initiative (TCI) has compiled this menu of incentives for states to use as a tool when researching ways to reduce barriers and promote electric vehicle use. Most states offer one or more incentives for consumers, businesses, or government entities to purchase and use plug-in electric vehicles (PEV) or electric vehicle charging stations (also known as electric vehicle supply equipment, or EVSE). Incentives are listed by state on the Department of Energy’s Alternative Fuel Data Center website, and information on each state’s incentives is also typically available on the host state agency’s website. This menu is a broad overview of the types of PEV incentives that states can and do offer, and is a resource for state policy makers who are seeking new ideas for ways that their state may promote PEV adoption.

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Glossary

PEV- Plug-in electric vehicle (both battery electric vehicles and plug-in hybrid electric vehicles)

BEV- Battery-electric vehicle (e.g., Nissan Leaf)

ZEV -Zero-emissions vehicle

PHEV - Plug-in hybrid electric vehicle (e.g., Chevy Volt)

HEV- Hybrid electric vehicle (e.g., Toyota Prius)

AFV - Alternative fuel vehicle (any vehicle that runs on an alternative fuel)

EVSE -Electric vehicle supply equipment (i.e., PEV charging stations)

Incentives for PEV Purchase

States may choose to offer incentives to offset the purchase of a PEV. These include incentives that decrease the price of the vehicle (such as a rebate or sales and use tax reduction), or decrease the cost of owning and using the vehicle (such as a registration fee reduction or protection from inflated insurance premiums). One point to consider is whether the PEV purchaser will be able to realize savings at the point of purchase. Sales and use tax exemptions lessen the up-front cost of the vehicle, and rebates are realized shortly thereafter. Income tax credits, on the other hand, cannot be claimed until the end of the year.

Income Tax Credit

In addition to the \$7,500 federal income tax credit available to PEV purchasers, states may offer a state income tax credit.

Example:

[Colorado offers \\$6,000](#) in savings to PEV purchasers through a state income tax credit. The credit is available to state taxpayers who purchase an alternative fuel vehicle, convert their vehicle to use alternative fuel, have replaced their vehicle's power source with a power source that uses alternative fuel, or modify their vehicle to include idling reduction technology. The vehicle must be titled and registered in Colorado, and the credit is available for each qualifying motor vehicle owned by an individual (both owned and leased). If an authorized credit exceeds the income tax due for the tax year, the credit may not be carried forward and shall be refunded to the taxpayer. For a vehicle that is converted at the factory, the lessor has the option of claiming the credit or passing the right to claim the credit to the lessee provided the lessor has passed that credit to the lessee in writing. Used vehicles qualify for this credit.

Rebate

States may provide rebates to residents or businesses that purchase an electric vehicle or convert an internal combustion vehicle to an alternative fuel vehicle. Rebates are often based on a percentage of the incremental cost of purchasing an alternative fuel vehicle, or a set dollar amount. The state specifies that type of applicant eligible to receive the rebate (individual, business, local government, etc.) and establishes rebate procedures (how to apply for the rebate, the timeline for issuing the rebate, etc.).

Example:

Pennsylvania's Alternative Fuel Infrastructure Grant program offers [Alternative Fuel Vehicle Rebates](#) to assist eligible residents with the incremental cost of purchasing AFVs, including PEVs. Rebates of \$3,500 are available for qualified PEVs. Similarly, Illinois provides a one-time [rebate for 80%](#) of the incremental cost of purchasing an alternative fuel vehicle (including PEVs), or up to \$4,000 total. The program also covers 80% of the cost of converting a conventional vehicle or hybrid electric vehicle to an alternative fuel vehicle in a federally certified conversion. Only alternative fuel vehicles purchased from an Illinois-based company of vendor are eligible. This program is available for individuals, businesses, local government units, schools, and other organizations based in the state.

Sales and Use Tax Reduction or Exemption

States may offer a sales and use tax reduction or exemption for those who purchase, lease, or rent an electric vehicle. The up-front cost of PEVs remains high, with the initial price of the vehicle often exceeding \$35,000. States that offer a sales and use tax exemption for PEV purchases can offer immediate savings to potential purchasers. For instance, in a state with 6% sales tax, someone who purchases a \$35,000 vehicle can save \$2,100 at the point of purchase.

Example:

Maryland allows a [vehicle excise tax exemption](#) for the purchase of plug-in electric vehicles (PHEV) based on battery capacity, capped at \$1,000 per vehicle. In New Jersey, zero emission vehicles (ZEVs) that are sold, rented, or leased in the state are [exempt from state sales and use tax](#). ZEVs are certified pursuant to the California Air Resources Board zero emission standards based on a particular vehicle's model year. The exemption is not applicable to low-emission vehicles, including hybrid electric vehicles such as the Toyota Prius and Honda Civic Hybrid (New Jersey Statutes 54:32B-8.55).

Loans and Grants for PEV Purchase

States and municipalities may offer loans or grants to offset the cost of PEV purchase. Loans and grants can be offered to government or nonprofit entities, or private businesses to purchase PEVs, install EVSE, or engage in activities that promote the use of PEVs.

Example:

The [Connecticut Clean Fuel Program](#) provides funding to municipalities and public agencies that purchase, operate, and maintain alternative fuel and advanced technology vehicles, including EVs.

License tax and registration fee reduction

States may offer a reduced license tax or registration fee for alternative fuel vehicles. The tax is usually calculated as a lesser percentage of the value of the vehicle than the calculation used for internal combustion engine vehicles.

Example:

In Washington, DC, a new motor vehicle with a U.S. EPA estimated average city fuel economy of at least 40 miles per gallon is eligible for a [reduced vehicle registration fee](#) of \$36.

Personal Property Tax Exemption or Reduction

States may allow local governments to have the option of reducing personal property taxes paid for electric vehicles and related equipment (i.e., EVSE). The size of the property tax is based on the value of the PEV and EVSE as assessed.

Example:

Virginia allows local governments to [reduce personal property taxes](#) paid on electric vehicles.

Prohibition on Insurance Company Surcharges

States may protect owners of PEVs from premium surcharges by insurance companies by prohibiting such conduct unless a particular state agency receives actuarial data justifying them.

Example:

[Florida prohibits premium surcharges](#) if based on new technology, passenger payload, weight-to-horsepower ratio, and the types of material used to manufacture the vehicle unless the Florida Office of Insurance Regulation receives actuarial data that it finds justifies the added cost imposed. Similarly, [in Maine, an insurer may credit](#) or refund a portion of the premium charged for an insurance policy on EVs.

Incentives to Promote the Manufacturing and Selling of PEVs

States may offer incentives to businesses that manufacture and sell PEVs. These may include monetary incentives that offset the cost of manufacturing PEVs (such as a PEV manufacturer tax credit), or exemptions from regulations that govern certain aspects of the manufacturing industry.

PEV Manufacturer Tax Credit

States may choose to promote green business within their state by offering tax credits to companies that manufacture electric vehicles or PEV components.

Examples:

[Vermont businesses](#) involved in the design, development and manufacture of alternative fuel vehicles are eligible for up to three of the following tax credits: 1) payroll income tax credit; 2) qualified research and development income tax credit; 3) export tax credit; 4) small business investment tax credit; and 5) high-tech growth tax credit. Similarly, in [Wisconsin](#), a corporation involved in qualified research (including research on automotive batteries for use in fuel cell, hybrid electric, and all-electric vehicles) is eligible for a tax credit equal to 10% of the qualified research expenses that the corporation incurs in Wisconsin during the taxable year. In [Virginia](#), businesses involved in alternative fuel vehicle and component manufacturing, alternative fueling equipment component manufacturing, and alternative fuel vehicle conversions are eligible for a job creation tax credit of up to \$700 per full-time employee.

Regulation Exemptions

States may allow PEV manufacturers or companies involved in the PEV component supply chain to be exempt from the requirement of having a certified pollution control system.

Example:

In [Oregon, dedicated original equipment manufacturers](#) of natural gas vehicles and PEVs are not required to be equipped with a certified pollution control system.

Driving Experience Incentives

Driving experience incentives may be used to promote the use of PEVs. These include incentives that make it easier to drive on roadways, remove parking barriers, or exempt PEVs from inspections. Driver experience incentives are valued differently amongst communities, and are often implemented at the local level.

Access to HOV lanes

States may allow PEVs to use "high occupancy vehicle"-designated lanes on state highways without having to meet the occupancy threshold. HOV access is often dependent on rush hours periods. Some states permit access only for certain state highways whereas others provide access wherever available. States often require an official sticker be visibly placed on the exterior of the PEV or another of identification like a special license plate. States may charge fees to obtain a sticker or license plate.

Example:

In Maryland, PEVs may [operate in HOV lanes](#) regardless of number of occupants. To operate in HOV lanes, PEV owners must obtain a permit from the Maryland Motor Vehicle Administration for a fee. Similarly, [California features both a "White Clear Air Vehicle" sticker](#) and a "Green Clean Air Vehicle" sticker. The white sticker is not limited in the number available and is open to zero emission vehicles such as BEVs like the Nissan Leaf. The green sticker is limited to the first 40,000 applicants that purchase or lease cars that qualify as a California's Enhanced Advanced Technology Partial Zero Emission Vehicle, as Chevy Volt does. There was a yellow sticker for hybrid vehicles but the program ended on July 1, 2011 to promote newer lower-emission technologies. As of August of 2012, only 4,000 green stickers had been issued (the program began in early 2012).

PEV-Only Parking Spaces

States may require that spaces be set aside for PEV-only parking. These designated spaces are typically next to Level 2 or DC Fast Charging EVSE. States may incorporate this requirement into the building code for new developments, or may require that businesses allocate a certain number of parking spaces within existing lots for PEV-only parking. Many large private businesses also offer PEV-only parking in conjunction with charging equipment as an incentive for consumers. The amenity promotes business by inducing PEV-drivers to shop while they charge.

Example:

In [Hawaii, all parking facilities](#) that are available for use by the general public and include at least one hundred parking spaces must designate at least one parking space specifically for PEVs, provided that no parking spaces required by the Americans with Disabilities Act Accessibility Guidelines are reduced or displaced. The spaces must be clearly marked and equipped with EVSE; owners of multiple parking

lots may designate and install EVSE in fewer parking spaces than required in one parking lot, as long as the total number of aggregate spaces for all parking lots is met. Penalties apply for non-PEVs that park in spaces designated for PEVs.

Parking Fee Exemption

States and localities may offer free parking in spaces where gas-powered vehicles would need to pay the meter. The state may require a special license plate or designate certain areas where the exemption applies and others where there is no exemption for electric vehicles. Parking regulations are usually set and enforced at the local level.

Example:

The City of New Haven, CT, [offers free parking](#) for HEVs and AFVs on all city streets. Similarly, in Hawaii, qualified PEVs with a state-issues PEV license plate are [exempt from parking fees](#) charged by any non-governmental authority.

Motor Vehicle Inspection Exemption

States may choose to exempt PEVs and other alternative fuel vehicles from state-required motor vehicle inspections.

Example:

In Idaho, HEVs and PEVs are [exempt from state motor vehicle inspection](#) and maintenance programs.

Emissions Testing Waiver

States may choose to exempt PEVs or other alternative fuel vehicles from state emission testing requirements.

Example:

In Maryland, BEVs are [exempt from mandatory emissions](#) inspection requirements.

Toll Reductions and Exemptions

States may exempt PEVs from paying certain tolls on state roadways. Amount of toll reduction and time of day restrictions may be decided by the states.

Example:

The New Jersey Turnpike Authority offers a [10% discount](#) on off-peak New Jersey Turnpike and Garden State Parkway tolls rates through NJ EZ-Pass for fuel efficient vehicles that meet the California Super Ultra Low Emission Vehicle standard. This discount is available for private accounts only, and the discount is tag-specific; it applies only to a specified tag within an account.

Incentives for EVSE Purchase, Installation, and Fueling

States may offer incentives for the purchase and use of EVSE. These include incentives that decrease the purchase price and installation of the EVSE (such as a rebate), or decrease the cost of fueling (such as providing free electricity). These incentives can be made available to individuals, corporations, or government entities, and can be customized by eligible group.

Income Tax Credit for Charging Station Construction

Similar to the rebate program, states may offer income tax credit for charging station purchase and installation. Amount of coverage and eligible applicants vary. States may decide if the rebate applies to equipment and labor costs, or equipment costs only. Tax credits are claimed at the end of the tax year, and are therefore not offered at the point of sale.

Examples:

Oregon's [Residential Energy Tax Credit program](#) allows qualified residents to receive tax credit for 25% of alternative fuel infrastructure project costs, up to \$750. A qualifying company that constructs a dwelling in Oregon and installs fueling infrastructure in the dwelling may claim the credit. All qualified infrastructure must be installed to meet code requirement, and must be capable of fueling or charging an alternative fuel vehicle within 14 hours. Oregon also offers an alternative fueling infrastructure tax credit for businesses, which covers 35% of eligible costs. Similarly, the Maryland Energy Administration offers an [income tax credit of 20%](#) of the cost of recharging equipment placed in service through tax year 2016. The tax credit may not exceed the lesser of \$400 or the state income tax imposed for that year. The tax credit is limited to one EVSE system per individual and 30 EVSE systems per business entity.

Purchase Rebate for EVSE

States may offer a rebate to offset the cost of purchasing EVSE. Amount of coverage and eligible applicants may vary. States may also decide if the rebate applies to equipment and labor costs, or to equipment costs only. Rebates are not offered at the point of sale, but can be claimed once the EVSE has been purchased and installed.

Example:

The [Illinois Department of Commerce and Economic Opportunity offers rebates](#) for the purchase of EVSE. The rebates cover 50% of the cost of equipment and installation, up to \$3,750 per networked singles station; \$3,000 per non-networked single station; \$7,500 per networked dual station; and \$6,000 per non-networked dual station. Eligible applicants include government entities, businesses, educational institutions, non-profit organizations, and individual residents of Illinois. The maximum total rebate award is the lesser of \$49,000, or 50% of the total project cost for up to 15 EVSE.

Loans, Grants and Rebates for EVSE

States may offer loans or grants to offset the cost of EVSE purchase and installation or allow local governments to provide loans and grants to businesses and consumers. Loans and grants can be offered to government or nonprofit entities, or private businesses to purchase and install EVSE.

Example:

The [Green Communities Division](#) of the Massachusetts Department of Energy Resources provided funding to local governments to fund the installation of publically available EVSE (as of December 2011, funding was not available). All Massachusetts cities and towns were eligible to apply, and preference was given to the 74 designated Green Communities and communities predicted to have the largest volume of potential PEVs.

PEV Infrastructure and Battery Tax Exemptions

States may exempt electric vehicle charging stations and supporting infrastructure from sales and use tax, excise tax, and/or property tax. States may also qualify what types of installations qualify for the various tax exemptions.

Example:

In [Washington, public lands](#) used for installing, maintaining, and operating PEV infrastructure are exempt from leasehold excise taxes until 2020. In addition, state sales and use taxes do not apply to PEV batteries; labor and services for installing, repairing, altering or improving PEV batteries and PEV infrastructure, and the sale of property used for PEV infrastructure.

Fuel Tax Rate Reduction or Exemption

States may elect to reduce or exempt electricity from the state transportation fuels tax.

Example:

[In Utah](#), electricity used to operate motor vehicles is exempt from state fuels taxes.

Free Charging

States may choose to provide free charging to publicly and privately owned PEVs at state-owned chargers. Free charging can be offered at state-owned facilities (such as state fleet headquarters), or at publically available charging infrastructure throughout the state (such as state-funded EVSE at a parking garage). States may opt to provide free charging at Level 1 outlets, or Level 2 or DC Fast Charging stations.

Example:

In Washington, publically and privately owned PEVs may be [charged at state office locations](#) where the vehicles are used for state business, conducting business with the state, or as commuter vehicles. This same statute also requires the state to install electrical outlets suitable for charging PEVs in each of the state's fleet parking and maintenance facilities, as well as state-operated rest stops.

Incentives for Fleets

States may incentivize PEV use in private and public fleets. Incentives may offset the cost of the vehicle (such as purchase vouchers to cover the incremental cost of the PEV), or programs that offer recognition for purchasing PEVs.

Purchase Vouchers

Many states are requiring state fleets to purchase a minimum number of alternative fuel vehicles. States may also elect to provide incentives to help state and private fleets offset the incremental cost of purchasing alternative fuel vehicles, such as purchase vouchers to fleets to reduce the cost of purchasing a PEV. States can decide what vehicles are eligible to receive vouchers (e.g., light, medium, or heavy-duty vehicles), and the maximum amount of eligible funds.

Example:

The California Air Resourced Board provides vouchers to eligible fleets through the [Hybrid Truck and Bus Voucher Incentive Project](#). Through this project, eligible fleets may receive vouchers to reduce the incremental cost of qualified medium- and heavy-duty hybrid electric vehicles and zero emission vehicles at the time of purchase. Through this program, vouchers are available on a first-come, first-served basis and range from \$6,000 to \$45,000. Similarly, the [New York City Private Fleet Alternative Fuel/Electric Vehicle Program](#) helps private companies and non-profit organizations operating vehicles in New York City acquire alternative fuel and advanced vehicles. NYSERDA awards program funds on a competitive basis for up to 50% of the incremental of cost of purchasing light-duty PEVs, and up to 80% of the incremental cost of purchasing or converting medium- and heavy-duty PEVs.

Fleet Recognition

States may incentivize the use of alternative fuel vehicles in fleets by offering recognition and marketing opportunities to fleets that purchase a certain number of AFVs. States may decide on the minimum requirements for recognition, and the type of marketing offered.

Example:

The [Illinois Green Fleets Program](#) recognizes corporate, small businesses, government, and other fleets in Illinois that “green” their fleet operation. Fleets interested in having their fleet designated for the Illinois Green Fleets Program must submit an application describing their current fleet, and this information will be tabulated and scored based on several criteria. Based on the number of points, fleets

will be designated a 1-Star, 3-Star, or 5-Star Illinois Green Fleet, and will receive various degrees of public recognition.

Other Incentives

Alternative Fuel Training and Education

States may allocate funding for alternative fuel vehicle training programs. These programs may be technical programs, safety programs, workforce training, or educational initiatives.

Example:

California's [Alternative and Renewable Fuel and Vehicle Technology Program](#) provides funding for a variety of projects that promote the use of alternative fuels. The program sets aside funding specifically for workplace training and development, which will be used to train workers to manufacture low-emissions vehicles and components, produce alternative fuels, build fueling infrastructure, service and maintain fleets and equipment, and inform ongoing innovation and refinement to increase market acceptance. This program also dedicates funding to Market and Program Development, which gets information out to various enterprises as incentives and financing options become available.

Pilot Projects

States may choose to promote alternative fuel vehicles by undertaking demonstration programs or pilot projects.

Examples:

In Washington State, the [Washington Department of Transportation is authorized](#) to enter into partnership agreements with other public and private entities to use land for alternative fuel corridor pilot projects. Washington also issues [PEV Demonstration Grants](#) to state agencies, public school districts, public utility districts or political subdivisions for projects involving the purchase or conversion of existing vehicles to PEVs for use in an applicant's fleet or operations. In Maryland, the Public Service Commission is charged with establishing a pilot program to [incentivize PEV charging during off-peak hours](#). The pilot must include at least two electric companies and provide incentives for residential, commercial, and governmental customers to charge PEVs. The incentives should increase the efficiency and reliability of the electric distribution system and lower electricity use at times of high demand. The incentives may include time-of-use pricing, credits on distribution charges, rebates on the cost of charging systems, demand response programs, or other incentives approved by the Commission.

Vehicle to Grid

States may offer incentives to promote vehicle to grid research, development and use. Some states choose to allow vehicle to grid, promote research and development through grants to universities, or promote the practice amongst PEV drivers by offering a V2G energy credit.

Example:

In Delaware, retail electricity customers with at least one grid-integrated electric vehicle may qualify to receive [kilowatt-hour credits](#) for energy discharged to the grid from the PEV's battery at the same rate that the customer pays to charge the battery. A grid-integrated PEV is defined as a battery-powered motor vehicle with the ability for two-way power flow, as well as communications hardware and software that allows for external control of battery charging.

Grants for Car Sharing Organizations

States may provide incentives to specific types of organizations that would benefit from electric vehicle use. Some cities are working with car sharing organizations to ensure that a certain percentage of the car sharing company's fleet is electric, while other cities and states are providing funding to help car sharing organization transition to electric vehicle use.

Example:

In Illinois, [car sharing organizations](#) may be eligible for grants of up to 25% of qualifying project costs, including the cost of purchasing new plug-in electric vehicles and building charging infrastructure. To be eligible for funding, vehicles must be predominantly powered by electricity, be purchased from an Illinois dealership, and remain registered and in service with the grantee in Illinois for at least five years after purchase.

Time of Use Rates for PEV Charging

State public utility commissions may allow utilities to set time of use rates to encourage off-peak charging for PEVs. These TOU rates typically charge less per kWh if the PEV is charged during "off-peak" hours (at night). Utilities can offer TOU rates for the whole house, or specifically for PEVs. This incentive allows PEV owners to charge their car for less, while lessening the impact of their PEV on the grid.

Examples:

[PPL Electric Utilities](#) offers a single "whole house" TOU rate for homes and small businesses. PPL charges \$.10 per kilowatt hour (kWh) during off-peak hours (summer, 7pm-1pm; winter, 8pm-5pm). In contrast, [Southern California Edison](#) offers an electric vehicle rate plan, which requires a separate meter for the EV and charges \$.12 per kWh for off-peak charging (9pm-noon).

Exemption of Charge Providers from Regulation as Utilities

States may adopt legislation to remove uncertainty regarding whether EVSE owners and operators are or should be regulated as utilities when they provide electricity to PEV drivers to charge their vehicles.

Example:

In Maryland, owners and operators of PEV charging equipment are [excluded from the definition of “electricity supplier”](#) and “public service company” and persons who charge PEVs at charging stations are excluded from the definition of “retail electric customer” under the state’s public utilities law.

Sharing PEV Registration Information with Utilities

States may allow their vehicle registration agency to share PEV registration information with utilities to promote planning and reliability of the electricity distribution system, with appropriate privacy protections.

Example:

Maryland requires its Motor Vehicle Administration to [disclose information describing plug-in vehicles](#) and the addresses of their registered owners to electric companies for the purpose of planning for the availability and reliability of the electric power supply, and prohibits the use or re-disclosure of this information for solicitation purposes.

Establishment of PEV/EVSE Advisory Councils

States may establish advisory councils to develop a statewide strategic plan for the deployment of PEVs and PEV infrastructure.

Example:

Maryland’s legislature established the [Electric Vehicle Infrastructure Council](#) to develop a plan and report to the governor and legislature by December 1, 2012 regarding integration of electric vehicles into the State's transportation network.