

Electric Vehicles in Maryland

Plug-in electric vehicles (PEVs) are fun to drive and provide significant benefits to the American economy not just through the domestic manufacturing of the vehicles, but also through additional jobs in the electric power industry for the energy to operate them.^{1,2} The increased use of domestic electricity in the transportation sector promotes national security by reducing our dependence on imported oil. These vehicles keep the U.S. competitive with China and the Europe Union, which are both moving aggressively towards full deployment of the vehicles and nationwide charging systems.

There are currently over 7,926 PEVs on Maryland roads today, with the market ready to expand as new vehicle makes and models become available in Maryland.³ As these vehicles are a win-win for Maryland, it's no surprise that consumers want more of these vehicles today.



Annapolis, Maryland National Drive Electric Week 2016

Policies in Maryland for PEVs

Policy support at the federal, state and local levels is needed as the PEV market continues to develop and grow. Below is the most current list of PEV policies in Maryland:

Vehicle Purchase Incentive: PEVs are eligible for a one-time excise tax credit up to \$3,000.

Charging Station Incentive: The EVSE Rebate Program offers a rebate for the purchase and installation of EVSE, on a first come first serve basis. Residential rebates are up to \$900 and commercial rebates are up to \$5,000.⁴

HOV Lane Access Policy: PEVs are eligible for the HOV lane, as long as a designated permit is displayed.⁵

Utility Charging Rates for PEVs: PEPCO offers a whole time of use rate for qualifying PEPCO customers with a plug-in-vehicle that provides lower costs during off-peak hours, 8pm to 12pm. Baltimore Gas and Electric offers reduced EV charging rates for charging during off-peak hours.⁶

License and Registration Policy: PEVs must be scheduled for emissions testing at least 36 months after the model year of the vehicle.⁷

Fun Facts for PEVs in Maryland

- If Maryland meets its short-term goals of PEV penetration by 2025, there will be a cumulative net benefit of \$6.2 billion statewide by 2050.⁸

¹ Currently, the U.S. manufactures PEVs and other advanced technology vehicles and components in at least 20 states, creating thousands of new, good jobs. Furthermore, the auto industry has distribution centers, sales offices and operational facilities in all 50 states; the PEV industry is a part of the same distribution, sales and operational network and is difficult to separate from the main auto industry. More at: <http://sierraclub.typepad.com/compass/2012/06/fuel-economy-jobs.html>

² PEVs include battery-electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs). The BEVs are charged by electricity from the local grid, while PHEVs drive on electricity from the local grid first, then on gasoline for longer trips

³ <https://autoalliance.org/in-your-state/MD/>

⁴ http://energy.maryland.gov/transportation/Pages/incentives_evsebate.aspx

⁵ <http://mgaleg.maryland.gov/webmga/frmStatutesText.aspx?article=gtr§ion=25-108&ext=html&session=2016RS&tab=subject5;%20><http://www.mva.maryland.gov/About-MVA/INFO/27300/27300-54T.htm>

⁶ <http://www.pepco.com/my-home/save-money-and-conserve-energy/plug-in-vehicle-charging/>

⁷ <http://www.mva.maryland.gov/programs/VEIP/veiphybrid.htm>

⁸ http://mjbradley.com/sites/default/files/MD_PEV_CB_Analysis_FINAL.pdf



- An EV plugged in to the New England grid produces the equivalent emissions of an 86-miles-per-gallon vehicle—more than 50% lower than the average new gasoline vehicle.⁹
- Maryland adopted the California vehicle fuel economy standards, one part of which includes a “Zero Emissions Vehicle Mandate.” This mandate requires automakers to sell or purchase credits for a certain number of PEVs in Maryland. The MD market will begin to see a significant increase in PEV makes and models available in the state starting in 2018.¹⁰

Benefits for Every Driver in Maryland

The benefits of PEVs accrue to all residents in Maryland, regardless if the driver is in an urban or metro area. Top benefits include:

1. **PEVs put money back in the pockets of consumers.** On average, fueling a car with electricity is roughly the same as gas at \$1 per gallon, thanks to a PEV’s performance efficiency and the lower cost of electricity.¹¹ Maintenance costs are also significantly reduced.
2. **All drivers in Maryland have the ability to charge.** PEVs can be charged on a standard 120V wall outlet, also called Level 1 charging.¹² Faster charging can be achieved at the home or workplace with Level 2 charging.¹³ The map at the right shows the public charging stations that are currently available to all Maryland drivers.¹⁴ The orange icons are DC Fast charging stations, and the green icons represent public Level 2 charging stations. It is possible to get nearly anywhere in the state with a PEV, proving that these vehicles can work for all Maryland drivers.
3. **PEVs are significantly better for the local economy.** PEVs are fueled from electricity from the local grid, which is cheaper for all consumers. Money not spent on gas or on maintenance can be invested back into the local economy.
4. **PEVs improve air quality and reduce health care costs.** Poor air quality is still a problem for many U.S. states.¹⁵ PEVs produce far fewer tailpipe emissions than a standard gasoline-powered vehicle, therefore significantly reducing dangerous air pollution. With more PEVs on the roads, public and private health care costs can be greatly reduced.



Current public charging stations available to all Maryland drivers.

About Plug In America

Plug In America is the nation’s leading independent consumer voice for accelerating the use of plug-in electric vehicles in the United States to consumers, policymakers, auto manufacturers and others.

⁹ <http://www.ucsusa.org/sites/default/files/attach/2016/11/northeast-and-mid-atlantic-zev.pdf>

¹⁰ <http://www.cleancarscampaign.org/>

¹¹ <http://energy.gov/eere/ev-everywhere/ev-everywhere-saving-fuel-and-vehicle-costs>

¹² Level 1 is AC charging at 120V, the level of power that is supplied by a normal household outlet. This will supply up to 40 miles of range for an 8-hour connection during a typical work day. That’s enough to replenish the charge for the majority of Maryland drivers.

¹³ Level 2 is AC charging at a power level similar to what is supplied by an outlet for an electric dryer, typically 240V.

¹⁴ Zooming in further shows even more charging stations available. PlugShare is one platform that tracks charging station locations, prices and types of charging at each location. Drivers can download the PlugShare app to a mobile phone for free.

¹⁵ <http://www.lung.org/our-initiatives/healthy-air/sota/key-findings/>

