

Electric Vehicles in Vermont

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 1,485 PEVs on Vermont roads today, with the market ready to expand as new vehicle makes and models become available in Vermont.³ As these vehicles are a win-win for Vermont, it's no surprise that consumers want more of these vehicles today.

Policies in Vermont 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 Vermont:

Vehicle Purchase Incentive: Drive Electric Vermont offers a rebate of up to \$1,000 for the first 200 applicants who purchase a PEV. The incentive varies based on the battery size.⁴

Charging Station Incentive: The VT EV Charging Station Loan Program offers loans up to \$100,000 for charging stations through the State Infrastructure Bank. The charging station must be available for public use. There is a 1% fixed interest rate and a 2% commitment fee.⁵

License and Registration Policy: BEVs are exempt from emissions testing. BEVs also receive discounted registration fees of \$74 vs. \$132 for gas powered vehicles for a one year registration, and \$136 vs. \$242 for a two year registration.⁶



Shelburne, Vermont National Drive
Electric Week 2015

Fun Facts for PEVs in Vermont

- The Vermont Comprehensive Energy Plan (CEP) has the goal of powering 25% of vehicles in the state from renewable energy sources by 2030 as a step toward the overall goal of 90% by 2050.⁷
- Vermont 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 Vermont. The VT market will begin to see a significant increase in PEV makes and models available in the state starting in 2018.⁸

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/VT/>

⁴ <http://www.drivetrivert.com/buying-guide/purchase-incentives>

⁵ <http://www.veda.org/financing-options/vermont-commercial-financing/electric-vehicle-charging-station-loan-program/>

⁶ <http://dmv.vermont.gov/safety/laws/emissions>

⁷ <https://www.veic.org/docs/Transportation/20130320-EVT-NRA-Final-Report.pdf>

⁸ <http://www.cleancarscampaign.org/>

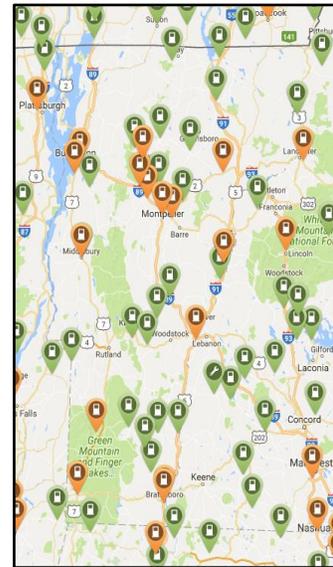


- Funding available under the VT Agency of Commerce and Community Affairs has resulted in 14 communities installing EV charging in downtown areas throughout the state.⁹
- An EV plugged in to the New England grid produces the equivalent emissions of an 86-miles-per-gallon vehicle—more than 50 percent lower than the average new gasoline vehicle.¹⁰

Benefits for Every Driver in Vermont

The benefits of PEVs accrue to all residents in Vermont, 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 Vermont 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 Vermont 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 Vermont 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 Vermont 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. Formed as a non-profit in 2008, Plug In America provides practical, objective information collected from our coalition of plug-in vehicle drivers, through public outreach and education, policy work and a range of technical advisory services. Our expertise represents the world's deepest pool of experience of driving and living with plug-in vehicles. The organization conceived National Drive Electric Week. We drive electric. You can too. www.pluginamerica.org

⁹ <http://legislature.vermont.gov/assets/Legislative-Reports/2016-Legislative-EV-Study-FINAL-formatted.pdf>

¹⁰ <http://www.ucsusa.org/sites/default/files/attach/2016/11/northeast-and-mid-atlantic-zev.pdf>

¹¹ <http://energy.gov/eere/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 Vermont 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/>

