

Electric Vehicles in California

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.

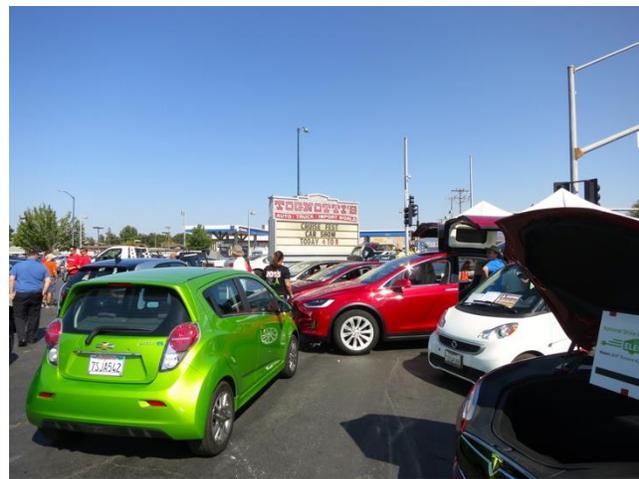
There are currently over 261,506 PEVs on California roads today, with the market ready to expand as new vehicle makes and models become available in California.³ As these vehicles are a win-win for California, it's no surprise that consumers want more of these vehicles today.

Policies in California 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 California:

Vehicle Purchase Incentive: The Clean Vehicle Rebate Project (CVRP) offers up to \$2,500 for the purchase or lease of BEVs, \$1,500 for the purchase or lease of PHEVs, and \$900 for electric motorcycles and NEVs. Qualifying low-income households may also receive additional rebates. PG&E is offering a \$500 clean fuel rebate for PG&E customers who own or lease a BEV. Residents living within SCAQMD may receive \$2,500 - \$4,500 for retiring and replacing an old gas vehicle with a low-emission vehicle, depending on income level and vehicle model, under the Replace Your Ride program. Disadvantaged community residents may receive an additional \$3,000 - \$5,000 for a vehicle and \$2,000 for EVSE.⁴

Charging Station Incentive: Residential property owners may have access to Property-Assessed Clean Energy (PACE) financing to install EV supply equipment (EVSE), depending on if the local government has a PACE program in place. PACE financing allows property owners to borrow funds to pay for the EVSE, and repays the funds through a special assessment on the property over a defined time. For a limited time, NRG EVgo is offering eligible apartment buildings and workplaces up to 10 charge-ready parking spaces for free. NRG EVgo will also manage the charging stations and cover the electricity costs through each driver's usage fee. The EV Charging Station Financing Program offers loans up to \$500,000 for the design, development, purchase, and installation of EV charging stations at small business locations throughout



Sacramento, California National Drive Electric Week 2016

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/CA/>

⁴ <https://cleanvehiclerebate.org/eng>



CA. The program may provide up to 100% coverage to lenders on certain loan defaults, and borrowers may be eligible to receive a rebate of 10-15% of the enrolled loan amount. Sacramento Municipal Utility District (SMUD) is offering residential customers either a \$599 rebate or a free level 2 charger for SMUD customers who purchase or lease a PEV.⁵

HOV Lane Access Policy: BEVs and PHEVs are eligible for Clean Air Vehicle Decals which allow access to HOV lanes for single occupants.⁶

Utility Charging Rates for PEVs: Various utilities throughout the state offer discounted rates for residential vehicle charging during off-peak hours. PG&E offers two residential EV rates - one that combines the EV electricity costs with those of the residence, and one that keeps the EV electricity costs separate. The lowest rates are offered between 11pm and 7am. SCE offers an EV rate plan with off-peak pricing between 9pm and 12pm that is charged separately from the residential electricity and a Time of Use rate plan with off-peak pricing between 10pm and 8am. SDG&E offers an EV rate plan with off-peak hours from 6pm - midnight and super off-peak hours from midnight - 5am. The City of Sacramento offers free charging in public parking garages for EVs that apply and are certified by the City's Emerging Small Business Development program.⁷

License and Registration Policy: BEVs and PHEVs are subject to a \$100 road usage fee beginning in 2020, for model years 2020 and later.

Parking Policy for PEVs: Many hotels and commercial buildings offer reduced or free parking for EV drivers. The City of Sacramento offers free parking to those BEVs that apply and are certified by the City's Emerging Small Business Development program. The City of San Jose, the City of Santa Monica and the City of Hermosa Beach also offers free parking.⁸

Other: CA Insurance companies may offer discounts on PEVs. Vehicles that do not pass emissions tests may be eligible for a retirement rebate of up to \$1,500 if the vehicle is removed from the road. Funds are currently exhausted but additional funds are anticipated on or after July 1, 2017.

Fun Facts for PEVs in California

- California has a long-term goal of reaching 1.5 million ZEVs by 2025 with enough infrastructure support for 1 million ZEVs by 2020. A survey from the California Center for Sustainable Energy reported PEV drivers were 92% satisfied with their vehicle purchase.⁹
- The California Energy Commission allocated \$8.9 million toward 9 DC fast charging projects along Interstate 5, State Route 99, and US Highway 101.¹⁰
- California's 3 major investor owned utility companies have proposed over \$1 billion in projects that support EV infrastructure and incentive programs.¹¹

⁵ <http://www.treasurer.ca.gov/cpcf/calcap/evcs/summary.asp>

⁶ <https://www.arb.ca.gov/msprog/carpool/carpool.htm>

⁷ https://www.sce.com/wps/portal/home/residential/electric-cars/residential-rates/lut/p/b1/hc_NboJAFAXgZ3HBUubAGMHuhpQMg3-1osXZNNdGSIKMqVrSt-9o3Giq3t25-U5yl5EKJbL0fkqVtaWus-qU5fDT8TmLxBKCrXIGebwGTJQVwGxgwMYA3BmGZ_0PIq-Jn_DQkDFG6zeXDjzvFvB3z4W11-FkHjgufPcCRhxhFM8NSBYUgi4wWzJGgeEFPDgyJJVOj8_vGF1Tn1FZFNsi6Zo70_GrHdtezi-WLDQdZ2ttFZYX_pvYX_Kjt9bEl6Lclhn6IUfZn_dr0_EY5KsQ!!/d14/d5/L2dBISEvZ0FBIS9nQSEh/?from=/info/electric-car/residential/rate-plans.htm

⁸ <http://www.cityofsacramento.org/Public-Works/Parking-Services/Discount-Programs/Electric-Vehicle>

⁹ <https://energycenter.org/sites/default/files/docs/nav/policy/research-and-reports/California%20Plug-in%20Electric%20Vehicle%20Owner%20Survey%20Report-May%202013.pdf>

¹⁰ <http://insideevs.com/california-awards-8-9-million-for-completion-of-fast-charge-corridor/>

¹¹ <http://www.utilitydive.com/news/how-californias-utilities-are-planning-the-next-phase-of-electric-vehicle/435493/>



Benefits for Every Driver in California

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

1. PEVs put money back in the pockets of consumers.

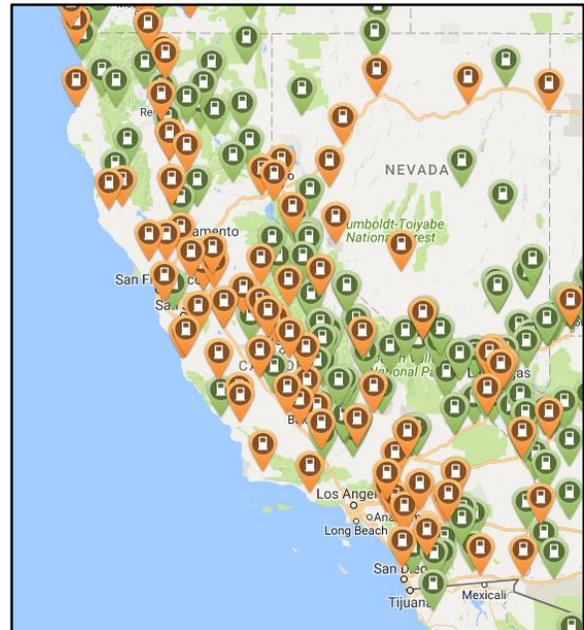
On average, fueling a car with electricity is roughly the same as gas at \$1 per gallon, thanks to a PEV's performance efficiency and the lower cost of electricity.¹² Maintenance costs are also significantly reduced.

2. All drivers in California have the ability to charge.

PEVs can be charged on a standard 120V wall outlet, also called Level 1 charging.¹³ Faster charging can be achieved at the home or workplace with Level 2 charging.¹⁴ The map at the right shows the public charging stations that are currently available to all California drivers.¹⁵ 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 California 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.¹⁶ 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 California 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 and has advanced workplace charging by pioneering ride-and-drive events at such leading corporations as Google, Mattel and Paramount Pictures. We drive electric. You can too.

www.pluginamerica.org

¹² <http://energy.gov/eere/evewhere/ev-everywhere-saving-fuel-and-vehicle-costs>

¹³ 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 California drivers.

¹⁴ Level 2 is AC charging at a power level similar to what is supplied by an outlet for an electric dryer, typically 240V.

¹⁵ 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.

¹⁶ <http://www.lung.org/our-initiatives/healthy-air/sota/key-findings/>

