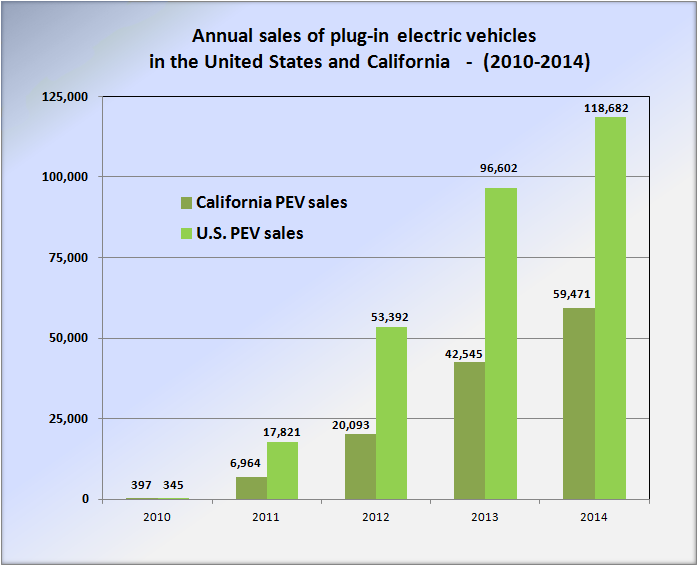
California Case

***As of December 2014, California not only has more plug-in electric vehicles than any other American state but also more than any other country in the world.***

“*The fleet of plug-in electric vehicles in the United States is the largest in the world, with a 43% share of global sales as of September 2014*.” [[1]](#endnote-1) As it is seen in the graph below California is counted for about 40% of all plug-in cars sold in the U.S.

# Market

Registered EVs in California represents 50.1% of total EVs sales in the U.S. at 2014.[[2]](#endnote-2) With 23% of Volt sales California is the leading Volt market during the second quarter of 2012, and it is followed by Michigan with 6.3% of national sales. The leading regional markets in California State were San Francisco, Los Angeles, and San Diego.[[3]](#endnote-3)



Governor of California, Jerry Brown pointed out in March 2012 that the goal of getting 1.5 million zero-emission vehicles (ZEVs) in California by 2025.[[4]](#endnote-4)

With 50% of its total sales Tesla Model S.6, Tesla Motors reported that in March 2013 California is the largest American market as delivery of 30,000 in the U.S.

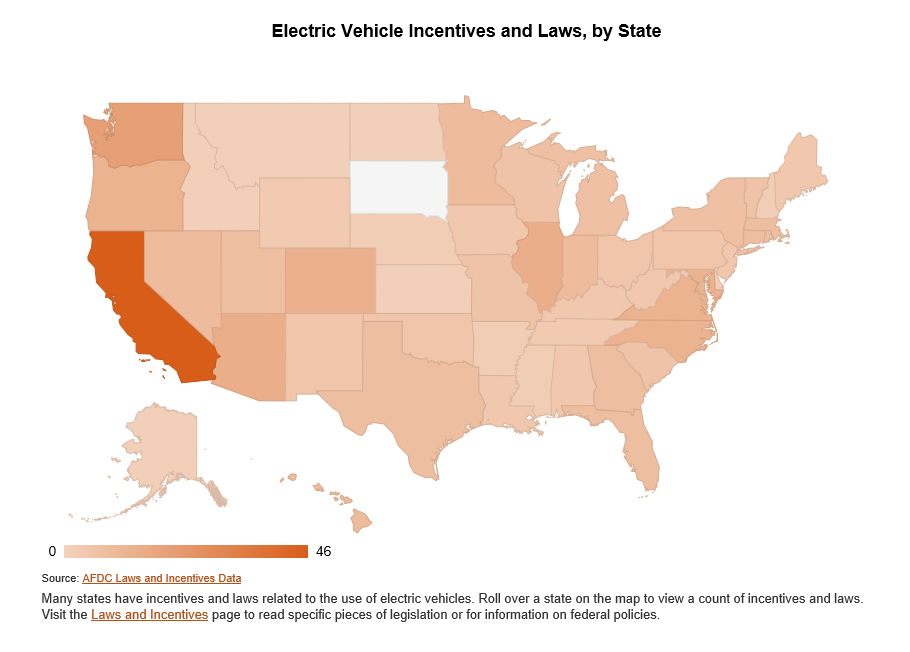
Charging stations

As for retailers, Walgreens is by far the plug-in friendliest, with 365 stores deploying plug-in stations nationally. 55 Kohl's stores had public stations as of March 22, while Whole Foods was home to 39 stations.

As of March 2013, the United States had 5,678 [charging stations](http://en.wikipedia.org/wiki/Charging_station) across the country, led by [California](http://en.wikipedia.org/wiki/California) with 1,207 stations (21.3%). In terms of public charging points, there were 19,472 public outlets available across the country by the end of December 2013, again led by California with 5,176 (26.6%) public charging points.[[5]](#endnote-5)

# Incentives

California has been a leader in the promotion of plug-in electric vehicles as the state has in place several financial and non-financial incentives. In addition to the existing federal tax credit, PEVs are eligible for a purchase rebate of up to US$2,500 through the Clean Vehicle Rebate Project (CVRP).[[6]](#endnote-6) Also, battery electric vehicles and initially, the first 40,000 applicants that purchase or lease a plug-in hybrid meeting California’s Enhanced Advanced Technology Partial Zero Emission Vehicle (Enhanced AT PZEV), are entitled to a clean air sticker that allows the vehicle to be operated by a single occupant in California's [carpool](http://en.wikipedia.org/wiki/Carpool) or [high-occupancy vehicle lanes](http://en.wikipedia.org/wiki/High-occupancy_vehicle_lane) (HOV high-occupancy vehicle lane (also known as an HOV lane, carpool lane, diamond lane, and transit lane or T2 or T3 lanes in Australia and New Zealand) is a restricted [traffic lane](http://en.wikipedia.org/wiki/Traffic_lane) reserved at [peak travel times](http://en.wikipedia.org/wiki/Rush_hour) or longer for the exclusive use of vehicles with a driver and one or more passengers, including [carpools](http://en.wikipedia.org/wiki/Carpool), [vanpools](http://en.wikipedia.org/wiki/Vanpool), and [transit](http://en.wikipedia.org/wiki/Public_transit) buses. ). The white access sticker is reserved for zero-emissions vehicles, while plug-in hybrids use the green sticker.[[7]](#endnote-7) As part of the package of bills signed into law by Governor Brown in September 2014, through SB 1275 the California Air Resources Board was mandated to draft a financial plan to meet California's goal of 1 million vehicles on the road while making sure that disadvantaged communities can participate. For this purpose CARB has to change the Clean Vehicle Rebate program to provide an extra credit for low-income residents who wish to purchase or lease an electric car. CARB also should provide assistance to car sharing programs in low-income neighborhoods and install charging stations in apartment buildings in those communities. Under SB 1275, low-income residents who agree to scrap older, polluting cars will also get a clean vehicle rebate on top of existing payments for junking smog-producing vehicles.[[8]](#endnote-8)



AB 2565 facilitates access to charging stations by requiring commercial and residential property owners to approve installation if the charging station meets requirements and complies with the owner’s process for approving a modification to the property.[[9]](#endnote-9)

As of 10 March 2014, a total of 52,264 clean vehicle rebates have been issued, for a total of US$110,222,866 disbursed, with only US$3.8 million remaining for fiscal year 2013-2014.[[10]](#endnote-10) The Clean Vehicle Rebate Project notes their figures do not capture all [plug-in electric vehicles](http://en.wikipedia.org/wiki/Plug-in_electric_vehicle) sold in California because not every PEV owner applies for the rebate

# Customers (February 2014 Survey Report)

The Plug-in Electric Vehicle (PEV) Owner Survey is a long-term collaborative research project managed by Center for Sustainable Energy's (CSE), in coordination with the California Air Resources Board (ARB) and researchers at UT Austin's Lyndon B. Johnson School of Public Affairs and the UC Davis Institute of Transportation Studies.

The latest survey of California’s plug-in electric vehicle (PEV) drivers shows differences in primary purchase motivations from owners of one model to the next. The survey also shows increased satisfaction with public charging options and wider availability of workplace charging.[[11]](#endnote-11)

# May 2013 Survey Report

***PEV Owners Highly Satisfied with Driving Experiences***

California is the nation’s largest PEV market with some 30,000 vehicles, roughly 35 percent of the U.S. total, with sales adding about 2,500 additional cars in the state each month. The data in this survey reflects the actions of some 2,039 PEV owners throughout the state.[[12]](#endnote-12)

# Problems & Solutions

What has market worried, however, is the fact that it has seen EV sales dip in the second half of 2014. And with gasoline prices plummeting for various reasons, we’re likely to see that trend worsen in 2015, both in California and around the country. Here’s a chart showing California sales of EVs in 2014, based on rebate applications.

That said, the California Public Utilities Commission (CPUC) should consider the executive order seriously in its policymaking efforts. There is, after all, a binding law that requires the CPUC to do what it can to effect the EV transition (SB 626, for example, which has been implemented by the commission).

So what can California do to get its EV transition back on track?

**1. Expedite approval of utility applications to build out the EV charging infrastructure rapidly**

**2. Dramatically expand education and outreach efforts by working with nonprofit educational organizations**

**3. Create a tariff that allows EV owners to earn money by absorbing excess solar power during peak production times**

**4. Improve the state rebate process**

**5. Increase the state gas tax and funnel receipts back into rebates for EVs**

At this time, with EV sales dipping dangerously, it is needed to consider all the options for getting sales back on track.

# **Bibliography**

1. <http://en.wikipedia.org/wiki/Plug-in_electric_vehicles_in_the_United_States#California>
2. <http://www.autoblog.com/2013/04/10/us-public-charging-stations-increase-by-9-in-first-quarter/>
3. <http://www.afdc.energy.gov/fuels/stations_counts.html>
4. <http://gov.ca.gov/news.php?id=17463>
5. <http://energycenter.org/clean-vehicle-rebate-project>
6. <http://www.hybridcars.com/californians-bought-more-plug-in-cars-than-china-last-year/>
7. <http://www.cncda.org/CMS/Pubs/Cal_Covering_4Q_14.pdf>
8. <http://www.navigantresearch.com/newsroom/nearly-1-in-4-plug-in-electric-vehicles-sold-in-the-united-states-from-2012-to-2020-will-be-sold-in-california>
9. <http://energy.gov/eere/vehicles/vehicle-technologies-office>
10. <http://www.its.ucdavis.edu/research/publications/publication-detail/?pub_id=2353>
11. <http://www.eia.gov/todayinenergy/detail.cfm?id=19131>
12. <http://www.electric-vehiclenews.com/2014/11/electric-vehicles-account-for-almost-10.html>
13. <http://www.hybridcars.com/california-leads-the-way-in-electric-vehicle-sales/>
14. <http://www.afdc.energy.gov/case/2023>
15. <http://energycenter.org/clean-vehicle-rebate-project/vehicle-owner-survey/july-2012-survey>
16. <http://energycenter.org/clean-vehicle-rebate-project/vehicle-owner-survey/cvrp-final-report-2012-2013>
17. Jeff Cobb (2014-10-22). ["Global Plug-in Car Sales Now Over 600,000"](http://www.hybridcars.com/global-plug-in-car-sales-now-over-600000/). HybridCars.com. Retrieved 2014-10-23. *Cumulative global sales totaled 603,932 highway legal plug-in electric passenger cars and light utility vehicles through September 2014, consisting of 356,232 all-electric cars and utility vans and 247,700 plug-in hybrids. Sales figures account for sales only in the top ten world's markets.*

Jeff Cobb (2014-10-22). ["Global Plug-in Car Sales Now Over 600,000"](http://www.hybridcars.com/global-plug-in-car-sales-now-over-600000/). HybridCars.com. Retrieved 2014-10-23. *Cumulative global sales totaled 603,932 highway legal plug-in electric passenger cars and light utility vehicles through September 2014, consisting of 356,232 all-electric cars and utility vans and 247,700 plug-in hybrids. Sales figures account for sales only in the top ten world's markets.*

Dana Hull (2014-09-08). ["California charges ahead with electric vehicles"](http://www.mercurynews.com/business/ci_26493736/california-charges-ahead-electric-vehicles). [*San Jose Mercury News*](http://en.wikipedia.org/wiki/San_Jose_Mercury_News). Retrieved 2015-03-15

<http://www.hybridcars.com/californians-bought-more-plug-in-cars-than-china-last-year/>

Nathan Bomey (2012-06-05). ["California can't get enough of the Chevy Volt as sales surge"](http://www.freep.com/article/20120605/BUSINESS01/206050424/California-can-t-get-enough-of-the-Volt-as-sales-surge). [*Detroit Free Press*](http://en.wikipedia.org/wiki/Detroit_Free_Press). Retrieved2012-06-06.

Staff (2012-03-23). ["Governor Brown Announces $120 Million Settlement To Fund Electric Car Charging Stations Across California"](http://gov.ca.gov/news.php?id=17463). Office of Governor Edmund G. Brown Jr. Retrieved2014-09-22

1. Dana Hull (2014-09-08). ["California charges ahead with electric vehicles"](http://www.mercurynews.com/business/ci_26493736/california-charges-ahead-electric-vehicles). [*San Jose Mercury News*](http://en.wikipedia.org/wiki/San_Jose_Mercury_News). Retrieved 2015-03-15 [↑](#endnote-ref-1)
2. <http://www.hybridcars.com/californians-bought-more-plug-in-cars-than-china-last-year/> [↑](#endnote-ref-2)
3. Nathan Bomey (2012-06-05). ["California can't get enough of the Chevy Volt as sales surge"](http://www.freep.com/article/20120605/BUSINESS01/206050424/California-can-t-get-enough-of-the-Volt-as-sales-surge). [*Detroit Free Press*](http://en.wikipedia.org/wiki/Detroit_Free_Press). Retrieved2012-06-06. [↑](#endnote-ref-3)
4. Staff (2012-03-23). ["Governor Brown Announces $120 Million Settlement To Fund Electric Car Charging Stations Across California"](http://gov.ca.gov/news.php?id=17463). Office of Governor Edmund G. Brown Jr. Retrieved2014-09-22 [↑](#endnote-ref-4)
5. [U.S. Department of Energy](http://en.wikipedia.org/wiki/U.S._Department_of_Energy) (2013-12-25). ["Alternative Fueling Station Counts by State"](http://www.afdc.energy.gov/fuels/stations_counts.html). Alternative Fuels Data Center (AFDC). Retrieved 2013-12-31. *The AFDC counts electric charging units or points, or EVSE, as one for each outlet available, and does not include residential electric charging infrastructure*. [↑](#endnote-ref-5)
6. ["Clean Vehicle Rebate Project FAQ: Changes in CVRP FY 2011-2012"](https://energycenter.org/index.php/incentive-programs/clean-vehicle-rebate-project/frequently-asked-questions-cvrp#changes). Center for Sustainable Energy California. Retrieved2011-05-22. [↑](#endnote-ref-6)
7. [California Department of Motor Vehicles](http://en.wikipedia.org/wiki/California_Department_of_Motor_Vehicles) (March 2014). ["Clean Air Vehicle (CAV) Decals - High Occupancy Vehicle HOV Lane Usage"](http://www.dmv.ca.gov/vr/decal.htm). DMV California. Retrieved 2014-03-23. [↑](#endnote-ref-7)
8. Melanie Mason and Patrick McGreevy (2014-09-21). ["Gov. Jerry Brown signs bills to boost purchases of electric cars"](http://www.latimes.com/local/political/la-me-pc-brown-electric-vehicles-20140921-story.html). [*Los Angeles Times*](http://en.wikipedia.org/wiki/Los_Angeles_Times). Retrieved 2014-09-21. [↑](#endnote-ref-8)
9. Marisa Lagos (2014-09-22). ["Brown signs several clean-air vehicle bills"](http://www.sfgate.com/bayarea/article/Brown-signs-several-clean-air-vehicle-bills-5771184.php). [*San Francisco Chronicle*](http://en.wikipedia.org/wiki/San_Francisco_Chronicle). Retrieved2014-09-22. [↑](#endnote-ref-9)
10. [Clean Vehicle Rebate Project](http://en.wikipedia.org/wiki/Clean_Vehicle_Rebate_Project) (2014-03-10). ["Clean Vehicle Rebate Project Statistics"](http://energycenter.org/clean-vehicle-rebate-project/cvrp-project-statistics). California Center for Sustainable Energy. Retrieved 2014-03-23. [↑](#endnote-ref-10)
11. <http://energycenter.org/clean-vehicle-rebate-project/vehicle-owner-survey/feb-2014-survey> [↑](#endnote-ref-11)
12. http://energycenter.org/clean-vehicle-rebate-project/vehicle-owner-survey/may-2013-survey [↑](#endnote-ref-12)