

The Alternative Fuel Vehicle Refueling Property Credit: Section 30C

Plug-in electric vehicles (PEVs) are fun to drive, have little to zero tailpipe emissions and can be powered with clean, affordable, domestic electricity. From 2010 to February 2018, consumers have purchased more than 768,500 cars,¹ with sales expected to accelerate as new vehicle makes and models become available in all 50 states. More and more drivers are making the switch to drive electric simply because PEVs are convenient and save consumers money, particularly for those in the middle class.²

Plug In America is the nation's leading independent consumer voice for accelerating the use of PEVs in the United States to consumers, policymakers, auto manufacturers and others. Our mission is to promote the accelerated adoption of PEVs across the U.S. in order to achieve the benefits PEVs provide for all.³

Section 30C: Alternative Fuel Vehicle Refueling Property Credit

In order for greater PEV adoption to occur, it is critical to have charging infrastructure in place to power these clean vehicles. Charging stations for PEVs fall into three basic categories by increasing charge speed: Level 1, Level 2 and DC fast charging.⁴ While faster charging is generally preferable, slower charging can be less expensive and serve more vehicles. The best power for a given installation depends on how much charge the target users will need, and how long each driver will want to stay at the charging location.

The alternative fuel vehicle refueling property credit recently expired on December 31, 2017.⁵ Any charging equipment - in addition to fueling equipment for natural gas, propane, diesel blends and biofuel blends - was eligible for a tax credit up to 30% of the cost of the property, not to exceed \$30,000 for those properties subject to an allowance for depreciation, and \$1,000 for all other properties.

The alternative fuel vehicle refueling property credit is a key policy that is helping to move the PEV market from the early adopter stage to the mass market stage. There are currently approximately 17,206 unique public charging

¹ Vehicle count based on HybridCars.com count of U.S. sales of 768,715 plug-in vehicles (BEVs, PHEVs) from December 2010 through the end of February 2018.

² On average, fueling a car with locally produced electricity is roughly the same as fueling with gas at \$1 per gallon: <http://energy.gov/eere/everywhere/ev-everywhere-saving-fuel-and-vehicle-costs>. Should gas prices rise to \$3.50 per gallon, the average PEV will save its owner nearly \$9,000 over the vehicle's lifetime. While the study was done for CA, a similar result is expected for consumers in other states as well.

<http://www.environmentcalifornia.org/sites/environment/files/reports/Drive%20Clean%20and%20Save%20June%202016.pdf>

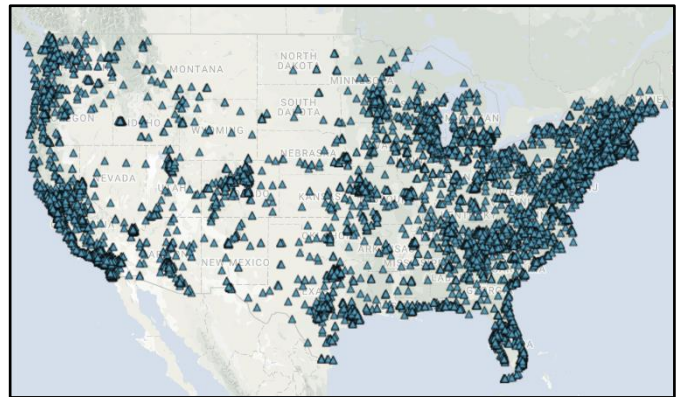
³ More information available at: www.pluginamerica.org

⁴ Level 1 is AC charging at 120V, the level of power that is supplied by a normal household outlet, and can be implemented with a simple outlet on a dedicated 15A or 20A circuit. This will supply 3 to 5 miles of range per hour to a typical PEV, or up to 40 miles of range for an 8-hour connection during a typical work day. Level 2 charging is AC charging at 240V, similar to the power for an electric dryer, and can provide a complete charge in 2-4 hours, or slightly longer depending on the vehicle type. The majority of public charging stations are Level 2. DC charging, or DC fast charging (DCFC), charges at 400V/125A, which provides a 50kW charge, though this varies across vehicle type and charging station company. The charge bypasses the vehicle charger and provides electricity directly into the battery. Typical charge time lasts anywhere from 20-30 minutes.

⁵ The Bipartisan Budget Act of 2018 extended the Section 30C credit retroactively for one year. Tax code language found under Title 26, Subtitle A, Chapter 1, Subchapter A, Part IV, Subpart B, §30C of the U.S. tax code at: <https://www.law.cornell.edu/uscode/text/26/30C>

stations, with 47,149 charging outlets at these stations located across the United States.⁶ While that may seem like many charging stations, there are nearly 800,000 PEVs on the road today, and this amount of charging outlets to be shared among those drivers is simply not enough. Moreover, PEVs currently represent less than 1% of the market in the U.S. for light-duty vehicles.⁷ As more and more consumers purchase these vehicles, there will be a severe need for more charging infrastructure in all 50 states. To support the fast growing PEV market, federal support is critical for the installation of charging infrastructure.

Not only does federal support aid in the upfront cost of the charging infrastructure, but the deployment of more charging infrastructure speeds the adoption of PEVs as well. For example, employees of companies that participated in the U.S. DOE Workplace Charging Challenge were found to be six times as likely to drive PEVs as the general population.⁸ Another study found that a 10% increase in public charging increased PEV sales by about 8%, a significant amount.⁹



This map shows the locations of public charging stations across the country, as reported to the U.S. DOE.

We urge policymakers to extend the Section 30C tax credit for alternative fuel vehicle refueling property until December 31, 2025. Only with federal support will enough charging infrastructure be ready and available to support this growing, job-producing sector of the U.S. economy.

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

⁶ <http://www.afdc.energy.gov/locator/stations/>

⁷ The DOE reports nearly 15 million light-duty vehicles purchased by consumers in 2013. <http://www.afdc.energy.gov/data/10314>

⁸ U.S. DOE. 2015. The Workplace Charging Challenge Mid-Program Review can be found at:

http://energy.gov/sites/prod/files/2015/12/f27/105313-5400-BR-0-EERE%20Charging%20Challenge-FINAL_0.pdf

⁹ Li, Shanjun, et al. 2015. The Market for Electric Vehicles: Indirect Network Effects and Policy Design. Found at:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2515037