

Electric Vehicles

Summary

Battery technology improvements, declining battery costs, and significant government incentives are driving increased adoption of electric vehicles (EVs) nationwide. The Energy Information Administration's 2021 International Energy Outlook projects that 31 percent of light duty vehicles globally will be EVs by 2050. The electrification of the transportation sector is expected to lead to reduced emissions, economic growth (from investments in EV technologies), and the enhancement of America's energy security through the diversification of transportation fuels. EVs may also be an asset to the grid through vehicle-grid integration technologies, including by absorbing excess generation from renewable energy resources, curtailing charging during peak hours, and even transferring power back to the grid if needed. Public power utilities are working with their communities to enable greater EV adoption through the development of charging infrastructure and EV customer programs and investment in smart grid technologies to manage EV charging. The American Public Power Association (APPA) supports policies to promote the adoption of EVs and the ability for public power utilities to provide EV-related services to their customers.

Background

Prior to 2021, EV adoption was primarily supported at the federal level through the tax code, using two major credits. Created by the Energy Policy Act of 2005, the Alternative Fuel Vehicle Refueling Property Credit (26 U.S.C. 30C) provided a tax credit equal to 30 percent of the cost of installing alternative fuel vehicle refueling infrastructure, including EV chargers. The credit was capped at \$30,000 for a business and \$1,000 for an individual and applied through December 31, 2021. The New Qualified Plug-in Electric Drive Motor Vehicles Credit (26 U.S.C. 30D) continues to provide a tax credit for the purchase of a new plug-in electric vehicle. Depending on the vehicle's battery

capacity, the credit is worth between \$2,500 and \$7,500. The credit, created in the Energy Improvement and Extension Act of 2008, is phased out for any vehicle manufactured by a manufacturer that has sold 200,000 or more qualifying EVs, a threshold that has been achieved by both Tesla and General Motors, with Toyota expected to exceed 200,000 EVs sold sometime in 2022. In the case of a tax-exempt entity that cannot make use of these tax credits, such as a public power utility, the tax credits instead can be claimed by the seller of the EV.

In 2015, the Fixing America's Surface Transportation Act included several measures to accelerate the growth of the EV market. One provision directed the Department of Transportation (DOT) to create corridor maps to identify the "near- and long-term need for, and location of, electric vehicle charging infrastructure...across the United States." Beginning in 2016, DOT designated routes as Alternative Fuel Corridors, leading to a national network that spans 49 states and over 165,722 miles. Additionally, state and local governments are increasingly supporting EV policies through grants and tax incentives. Several states have also adopted zero-emission vehicle goals or mandates that target either a percentage of new vehicle sales or 100 percent of new passenger vehicles sold by a specified date.

Congressional Action

The Infrastructure Investment and Jobs Act (P.L. 117-58), signed into law in November 2021, included several provisions and new federal funding designed to incentivize the deployment of EV infrastructure. Specifically, the law will provide \$5 billion over five years in funding to the states, distributed based on the existing highway funding formula, to deploy EV charging stations. Distributed under the National Electric Vehicle Infrastructure (NEVI) Formula Program, states are actively developing their plans to deploy EV fast charging infrastructure along Alternative Fuel Corridors. State plans, which require charging stations to be

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no more than one mile from the highway and no less frequent than every fifty miles, are due to the federal government on August 1, 2022. Federal funding is expected to flow to states by September 30, 2022.

The law also included a “must-consider” requirement under section 111(d) of the Public Utility Regulatory Policies Act (PURPA) that directs state public utility commissions and non-regulated electric utilities to consider measures to promote greater transportation electrification, including the establishment of rates that promote affordable and equitable vehicle charging options, facilitate reduced charging times, accelerate third-party investment in public EV charging stations, and appropriately recover the marginal costs of delivering electricity to EVs. APPA did not support creating a new must-consider requirement under PURPA because of the cost and regulatory burden it places on smaller public power utilities. Additionally, many public power utilities are actively considering, and many are already implementing, actions to increase EV adoption and the availability of EV chargers in their communities, making a must-consider requirement unnecessary.

Finally, the Infrastructure Investment and Jobs Act also established a \$2.5 billion grant program to deploy publicly accessible EV charging infrastructure, along with hydrogen fueling, propane fueling, and natural gas fueling infrastructure, along DOT designated Alternative Fuel Corridors, with half of the funding set aside to deploy. The other half of the overall funding in this program is for “community grants,” which can be used to deploy fueling infrastructure in public locations, including parking facilities, public buildings, schools, and parks. APPA supported this provision’s inclusion in the infrastructure law and previously supported similar standalone legislation, led by Environment & Public Works Committee Chairman Tom Carper (D-DE) during the 116th Congress. Public power utilities will be eligible to apply for these grants.

Additionally, the Build Back Better Act (H.R. 5376), which passed the U.S. House of Representatives in November 2021, would make several changes to tax policy impacting EVs and EV charging infrastructure. The bill would extend the Alternative Fuel Vehicle Refueling Property Credit (26 U.S.C. 30C) through 2031. It would also create a new, refundable tax credit for the purchase of electric vehicles through 2026. This new credit, with a base amount of \$7,500 would increase up to \$12,500 with additional incentives for vehicles assembled at a unionized U.S. factory and powered using U.S. made batteries. This credit, which includes a cap on the retail price of a vehicle and phases out for higher income taxpayers, would only be available to vehicles assembled in the U.S. starting in 2027. Finally, the Build Back Better Act would also create a tax credit for the purchase of used electric vehicles, up to \$4,000, through 2031. While the

Senate has not acted on the Build Back Better Act, negotiations remain ongoing about potential energy tax legislation that could include some or all the EV and EV charging infrastructure tax policies that passed the House as part of H.R. 5376.

APPA Position

Public power utilities are committed to providing their communities with the infrastructure and programs needed to support increased EV adoption. Insofar as Congress seeks to encourage the use of EVs, it should ensure that any such incentives are available to public power utilities and their customers. Federal programs and incentives should prioritize local decision making and flexibility to fulfill each community’s unique transportation needs. APPA supported increased funding for the deployment of EV charging stations in the Infrastructure Investment and Jobs Act and continues to engage with the federal government on the important role public power utilities will play as the NEVI funding and charging and fueling infrastructure grants programs are implemented nationwide. APPA was especially pleased that the infrastructure law included the creation of a grant program, for which public power utilities will be eligible to apply, to support the installation of EV charging stations along established alternative fuel corridors and in local communities.

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The American Public Power Association is the voice of not-for-profit, community-owned utilities that power 2,000 towns and cities nationwide. We represent public power before the federal government to protect the interests of the more than 49 million people that public power utilities serve, and the 96,000 people they employ. Our association advocates and advises on electricity policy, technology, trends, training, and operations. Our members strengthen their communities by providing superior service, engaging citizens, and instilling pride in community-owned power.