

# Policy Proposal: Financing Electric Vehicle Charging Stations

# **OVERVIEW**

The growth of the electric vehicle (EV) sector has been rapid, and the supporting infrastructure to charge electric vehicles will be critical in the 21st-century economy. Bloomberg New Energy estimates that by the year 2040, 58% of passenger vehicles and 30% of the global passenger vehicle fleet will be electric.<sup>1</sup> The U.S. Energy Information Administration's 2019 Annual Energy Outlook projects that annual sales of EVs in the United States will exceed 1 million vehicles per year by 2030. In order for the United States to maintain global leadership of this emerging technology while meeting its sustainability goals, the nation will need to rapidly expand its charging infrastructure. Unfortunately, local governments do not have sufficient financing mechanisms for expanding EV charging stations and the supporting infrastructure.

Numerous studies demonstrate the importance of public charging stations in enabling higher rates of EV adoption. The type of EV charger most applicable for usage at public charging stations is Level 3 Direct-Current Fast-Charging (DCFC) outlets, which can rapidly charge an electric vehicle at a rate of 60-80 miles per 20 minutes.<sup>2</sup> DCFC chargers are also the most expensive to install with costs ranging between \$51,000 - \$100,000 per unit.<sup>3</sup> A study by the National Renewable Energy Laboratory found that the U.S. in general, and the Midcontinent region in particular, has far less public charging infrastructure than what is required to achieve greater levels of EV adoption.<sup>4</sup> As America's economy shifts toward electric vehicles, local governments will need access to financing tools to support and expand the necessary EV charging infrastructure.

To meet this need, CDFA recommends the creation of a new Exempt Facility Bond category for vehicle recharging stations that would complement existing federal programs by making bonds available for the rapid expansion of charging infrastructure. CDFA also recommends that several existing federal financing programs be modified to allow for the financing of electric vehicle charging stations.

## IMPACT

The Biden-Harris Administration has placed a clear emphasis on mitigating the impacts of climate change. New technologies such as EV charging stations will enable the American economy to shift toward clean energy while maintaining America's position as a global leader. China currently leads the world in EV infrastructure investment and will account for 50% of global cumulative investment by 2025.<sup>5</sup> Investing in EV charging infrastructure will grow American jobs in the clean energy and transportation sectors. Widespread construction of EV charging stations will also incentivize more consumers to purchase electric vehicles, which will ultimately further the Administration's goal of reducing carbon emissions.

Communities of all sizes will benefit from adopting and expanding EV charging infrastructure. By financing EV charging stations, rural communities can attract tourists and prospective new residents that may have previously been hesitant due to lack of access to EV charging. A recent survey found that access to more EV charging stations was the number one factor that would increase respondents' likelihood of purchasing an electric vehicle.<sup>6</sup> EVs cost less than half as much to operate and maintain over their lifespan compared to gas-powered vehicles, resulting in



significant cost savings for drivers in both urban and rural areas. Local governments need access to financing tools to ensure equitable distribution of charging stations which will further encourage the adoption of EVs.

## **PROPOSED REFORMS**

Several small reforms can empower Development Finance Agencies (DFAs) and communities across the country to use existing financing tools to expand this critical infrastructure. CDFA recommends the creation of a category of small-issue Exempt Facilities Bonds specifically for electric vehicle charging stations, thereby allowing DFAs to leverage bonds – a proven and effective financing tool – to finance EV charging stations in urban and rural communities alike. Further, Congress should make statutory modifications to several existing federal financing programs to ensure local governments have the tools available to finance this critical infrastructure.

#### Reform 1 – Create an Exempt Facility Bond Category for Electric Vehicle Charging Stations

The creation of a new Exempt Facility Bond category for vehicle recharging stations would complement existing federal programs by making bonds available for the rapid expansion of EV charging infrastructure. There are thousands of DFAs nationwide that already issue these types of private activity bonds, so the addition of an Exempt Facility Bond category for EV charging stations would enable DFAs to immediately begin issuing bonds to finance privately-owned EV charging infrastructure.

#### Reform 2 – Allow the Surface Transportation Block Grant Program to Fund Installation of EV Charging

Surface Transportation Block Grants (STBG) can be used by states and localities to construct, install, and plan projects and infrastructure on any Federal-aid highway or public road and create alternative fuel corridors.<sup>7</sup> The STBG program was funded by the now-expired FAST Act of 2015 and again by appropriations in FY20 and FY21. Congress should pass the bipartisan Surface Transportation Reauthorization Act of 2021, which would make EV charging eligible for funding from the STBG program and create a competitive grant program for building alternative fuel corridors along national highways.<sup>8</sup>

#### Reform 3 – Broaden Available Usages of Section 108 Loan Guarantees for EV Charging Stations

HUD's Section 108 Loan Guarantee Program allows communities to leverage their annual CDBG allocation to gain access to federally guaranteed loans for pursuing economic development projects. This dynamic, flexible tool enables municipalities to access loans of up to several million dollars for a wide variety of economic development projects. Yet the statute defining eligible uses of Section 108 funds is vague, and does not explicitly mention EV charging stations.<sup>9</sup> The statute should be amended so that communities can use the Section 108 program to finance EV charging stations in a broader variety of project types.

#### Reform 4 – Modify EDA's Public Works Program to Allow for Funding of Public EV Charging Stations

The Economic Development Administration's Public Works Program provides distressed communities with catalytic investments to build critical infrastructure and facilities that meet certain criteria. Grants from the program can be used to construct essential public infrastructure and facilities needed to generate or retain private-sector jobs and investments. However, electric vehicle charging stations are not included in the list of allowable uses of funds. The Public Works program should be modified to allow grants to be used for the construction and expansion of EV charging stations to increase environmentally sustainable development.



## Reform 5 – Prioritize EV Charging Projects for Competitive Awards from the State Energy Program

The Department of Energy's State Energy Program provides state departments of energy with funds for a wide variety of energy-related projects based on a formula. EV Charging stations are eligible for funding through this program. The program also awards funds to projects on a competitive basis. Competitive awards are made based on projects that improve innovative approaches for local clean energy development. The program should be amended to prioritize awarding competitive funds to projects that involve EV charging stations.

## CONGRESSIONAL ACTION

In the 116th Congress, Representative Bradley Schneider (D-IL) introduced the Greener Transportation for Communities Act as H.R. 7318. That legislation was cosponsored by Representative Donald Beyer (D-VA) and Representative Earl Blumenauer (D-OR). The Greener Transportation for Communities Act was later included in the Moving Forward Act (H.R. 2) which eventually passed the House of Representatives.

## CONTACT

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<sup>2</sup> Council of State Governments, "State Utilities Law and Electric Vehicle Charging Stations", p. 3.

<sup>&</sup>lt;sup>1</sup> Bloomberg New Energy Finance, "Electric Vehicle Outlook 2020", p. 3. (<u>https://bnef.turtl.co/story/evo-2020/page/3/1</u>)

 $<sup>(\</sup>thtps://www.scribd.com/document/174828319/State-Utilities-Law-and-Electric-Vehicle-Charging-Stations)$ 

<sup>&</sup>lt;sup>3</sup> Great Plains Institute, "Analytical White Paper: Overcoming Barriers to Expanding Fast Charging Infrastructure in the Midcontinent Region", p 4. (<u>GPL\_DCFC\_Analysis\_July\_2019.pdf (betterenergy.org)</u>)

<sup>&</sup>lt;sup>4</sup> National Renewable Energy Laboratory, "National Plug-In Electric Vehicle Infrastructure Analysis," p. 11. (<u>National Plug-In Electric Vehicle Infrastructure Analysis</u>, (<u>nergy.gov</u>))

<sup>&</sup>lt;sup>5</sup> Bloomberg New Energy Finance, "Electric Vehicle Outlook 2020", p. 6. (<u>https://bnef.turtl.co/story/evo-2020/page/6/1</u>)

<sup>&</sup>lt;sup>6</sup> Volvo Cars USA, "Volvo Reports - The State of Electric Vehicles In America", p. 4. (<u>https://www.media.volvocars.com/us/en-us/media/documentfile/249123/volvo-reports-the-state-of-electric-vehicles-in-america</u>)

<sup>&</sup>lt;sup>7</sup> U.S. Department of Energy, "EV Funding Report", p. 10.

<sup>(</sup>https://www.fhwa.dot.gov/environment/alternative\_fuel\_corridors/resources/ev\_funding\_report\_2021.pdf)

<sup>&</sup>lt;sup>8</sup> U.S. Senate Committee on Environment and Public Works, "Surface Transportation Reauthorization Act of 2021", p. 2. (https://www.epw.senate.gov/public/\_cache/files/f/9/f9845f69-a3ed-4211-a1be-7b36be8a14c7/FEF54A141A40BAC6FC86E9FBFD656C3C.strasummary-one-pager-final.pdf)

<sup>&</sup>lt;sup>9</sup> 24 CFR § 570.201 - Basic eligible activities. | CFR | US Law | LII / Legal Information Institute (cornell.edu)