



Federal Highway Administration  
United States Department of Transportation  
1200 New Jersey Avenue SE  
Washington, D.C. 20590

January 28, 2022

*Via: Federalregister.gov*

**Re: Development of Guidance for Electric Vehicle Charging Infrastructure Deployment,  
Docket No. FHWA-2021-0022**

Thank you for the opportunity to provide input on the U.S. Department of Transportation’s (DOT) guidelines for the National Electric Vehicle Formula Program (EV Charging Program) and the Charging Fueling Infrastructure Program.

Founded in 1936, [Consumer Reports](#) (CR) is an independent, nonprofit and nonpartisan organization that works with consumers to create a fair and just marketplace. Known for its rigorous testing and ratings of products, CR advocates for laws and corporate practices that are beneficial for consumers. CR is dedicated to amplifying the voices of consumers to promote safety, digital rights, financial fairness, and sustainability. The organization surveys millions of Americans every year, reports extensively on the challenges and opportunities for today's consumers, and provides ad-free content and tools to 6 million members across the United States.

**Executive Summary**

On November 15, 2021, President Biden signed the Bipartisan Infrastructure Law, enacted as the Infrastructure Investment and Jobs Act (IIJA).<sup>1</sup> Included in IIJA is funding for the Electric Vehicle (EV) Charging Program and funding for the Charging and Fueling Infrastructure Program. The EV Charging program provides funding that the Federal Highway Administration (FHWA) will distribute amongst states to “deploy EV charging infrastructure and to establish an interconnected network to facilitate data collection, access, and reliability.”<sup>2</sup> The Charging and Fueling Infrastructure Program funds competitive grants “to strategically deploy publicly accessible EV charging infrastructure and hydrogen, propane, and natural gas fueling infrastructure.”<sup>3</sup> The FHWA has issued a request for information (RFI) requesting feedback on guidelines for both programs. CR’s recommendations are detailed in the sections below.

Broadly, CR encourages FHWA to strategically deploy funding and leverage local, state and private investment to ensure that both programs result in reliable, equitable, and accessible infrastructure. Guidelines must account for different needs in different communities, including

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<sup>1</sup> Pub. L. 117-58 (Nov. 15, 2021).

<sup>2</sup> 86 F.R. 67782, 67783 (Nov 29, 2021).

<sup>3</sup> *id.*

disadvantaged communities, and require engagement from stakeholders in these communities to ensure infrastructure investments benefit all Americans. Guidelines must minimize impacts to the grid, ensure long term maintenance of charging stations, and ensure equity in payment options. Finally, guidelines must maximize private capital investment wherever possible.

## **I. Introduction**

CR supports investments in programs that help expand EV adoption. Not only do electric cars eliminate tailpipe emissions and produce fewer emissions than using gasoline,<sup>4</sup> but EV owners can save an estimated \$6,000 to \$10,000 in fuel and ownership costs over the lifetime of the vehicle.<sup>5</sup> If implemented well, these guidelines can help achieve greater adoption of EVs and play a critical role in reaching President Biden’s goal of 50% of EV sale shares in the U.S. by 2030<sup>6</sup> and a 60% reduction in new vehicle greenhouse gas emissions by 2030.<sup>7</sup> However, reliable, equitable, and accessible charging infrastructure will be key to broad EV success.

## **II. Distribution of funds**

The \$7.5 billion provided by the IIJA is a good step towards helping states develop and deploy charging infrastructure across the country including in rural and disadvantaged communities. However, FHWA will need to be strategic in deploying this funding such that all communities experience real benefits from the expansion of charging infrastructure. To do so, FHWA will need to leverage additional local, state, and private investment in charging infrastructure. At the same time, FHWA must prioritize investments in places where the market is the least likely to deliver infrastructure without federal assistance, for example in lower income and rural communities. Finally, we encourage FHWA to work with Congress, automakers, utilities, and other private companies to further fund EV charging infrastructure. Such investment is vital for advancing clean transportation in the future.

### **a. Funding should be in accordance with the Administration’s Justice40 initiative**

Executive Order 14008 established the Administration’s Justice40 initiative with the goal of “delivering 40 percent of the overall benefits of relevant federal investments to disadvantaged

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<sup>4</sup> Union of Concerned Scientists, *Are Electric Vehicles Really Better for the Climate. Yes. Here’s Why*. (January 11, 2020). Available at: <https://blog.ucsusa.org/dave-reichmuth/are-electric-vehicles-really-better-for-the-climate-yes-heres-why/>

<sup>5</sup> Consumer Reports, *Electric Vehicle Ownership Costs: Today’s Electric Vehicles Offer Big Savings for Consumers*. October 2020. Available at: <https://advocacy.consumerreports.org/wp-content/uploads/2020/10/EV-Ownership-Cost-Final-Report-1.pdf>

<sup>6</sup> The White House, *FACT SHEET: The Biden-Harris Electric Vehicle Charging Action*. (Dec 13, 2021). Available at: <https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/13/fact-sheet-the-biden-harris-electric-vehicle-charging-action-plan/#:~:text=President%20Biden%20has%20united%20automakers,in%20the%20U.S.%20by%202030.>

<sup>7</sup> The White House, *FACT SHEET: President Biden Announces Steps to Drive American Leadership Forward on Clean Cars and Trucks*. (August 5, 2021). Available at: <https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/05/fact-sheet-president-biden-announces-steps-to-drive-american-leadership-forward-on-clean-cars-and-trucks/>

communities.”<sup>8</sup> Both the EV Charging Program, and the Charging and Fueling Infrastructure Program, are “covered programs” as outlined by the Interim Implementation Guidance for the Justice 40 Initiative.<sup>9</sup> Therefore, FHWA must at a minimum achieve the goals of the Justice 40 initiative in distributing funds both as part of the EV charging Program, and as part of the Charging and Fueling Infrastructure Program. In developing guidelines, FHWA must make it clear that States and other grantees will be held accountable for ensuring that any plan includes the build out of infrastructure in disadvantaged communities. Furthermore, these plans must include a commitment from the States and grantees to work with stakeholders in these target communities to better understand their needs, and how funding would best meet those needs.

### **III. Recommendations for EV Charging Program**

The IJIA directs FHWA, in coordination with DOE, to develop guidance for states and localities to deploy EV charging infrastructure based on the consideration of nine factors, as outlined in the RFI.<sup>10</sup> In developing guidance for states based on these nine factors, FHWA and DOE must ensure that it accounts for the diversity of current and future charging needs. Any guidelines must account for the fact that the EV market is likely to rapidly expand in the next decade,<sup>11</sup> and in this time both EV and charging technology will change and improve. EV infrastructure must be able to respond to increasing demand and changing technologies, such that investment now has meaningful future impacts. To that end, guidelines should encourage both technology neutral charging stations, and multimodal connections and travel choices. Below we provide some recommendations for the specific factors.

- a. Connections to the electric grid, including electric distribution upgrades; vehicle-to-grid integration, including smart charge management or other protocols that can minimize impacts to the grid; alignment with electric distribution interconnection processes, and plans for the use of renewable energy sources to power charging and energy storage (factor 2)**

The FHWA should, where feasible, explore strategies that minimize impacts to the grid, maximize the utilization of renewable energy, while minimizing charging costs to consumers. However, such prioritization should be given only if it does not come at the expense of equity and availability.

- b. The proximity of existing off-highway travel centers, fuel retailers, and small businesses to EV charging infrastructure acquired or funded under the Program (factor 3)**

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<sup>8</sup> Tackling the Climate Crisis at Home and Abroad, 86 F.R., 7619 (Feb. 1, 2021).

<sup>9</sup> Executive Office of the President, *Interim Implementation Guidance of the Justice40 Initiative*, M-21-28 (July 20, 2021). Available at: <https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf> (A covered program is a Federal Government program that makes covered investment benefits in one or more of the following seven areas: i. Climate change ii. Clean energy and energy efficiency iii. Clean transportation iv.)

<sup>10</sup> 86 F.R. 67782 (November 29, 2022)

<sup>11</sup> Bloomberg Professional Services, *Zero Emission Vehicles Fact Sheet*. (November 10, 2021). Available at: [https://assets.bbhub.io/professional/sites/24/BNEF-Zero-Emission-Vehicles-Factbook\\_FINAL.pdf](https://assets.bbhub.io/professional/sites/24/BNEF-Zero-Emission-Vehicles-Factbook_FINAL.pdf)

Where possible, charging infrastructure should be prioritized in areas that are most convenient for the population it is intended to serve. This includes existing off-highway travel centers, economic and development business districts and in underserved communities.

**c. The need for publicly available EV charging infrastructure in rural corridors and underserved or disadvantaged communities (factor 4)**

When developing guidelines FHWA must consider the need for infrastructure in rural corridors and underserved or disadvantaged communities. However, these guidelines must recognize that these are different types of communities with different needs. The exact needs of these disparate communities can only be fully understood if States work directly with stakeholders. As such, guidelines should require stakeholder input from targeted communities in order to better understand their needs and perspectives. FHWA must also clearly define “publicly available” to make clear that fueling stations must be accessible and available at all times, and cannot be behind gates or other barriers preventing immediate, on-demand use.

**d. The long-term operation and maintenance of publicly available EV charging infrastructure to avoid stranded assets and protect the investment of public funds in that infrastructure (factor 5)**

Mass adoption of EVs will require reliable charging. Unfortunately, current public charging infrastructure is often not dependable. As a recent survey from Plug in America indicates, 54% of current EV owners reported “experiencing problems with public charging, with broken chargers being the most common issue.”<sup>12</sup> FHWA’s guidelines must contain clear maintenance and uptime requirements to ensure that charging stations are reliably maintained. The guidelines must also consider how such requirements will be enforced.

**e. Fostering enhanced, coordinated, public-private or private investment in EV charging infrastructure (factor 7)**

As stated above, while a good start, the \$7.5 billion allocated in the IJA, FHWA will have to work to maximize matching private capital investment where possible. For example, while the Infrastructure Bill only requires 20% cost sharing from industry, FHWA guidelines should give preference to programs in which private investors take on a higher percentage of the cost share, especially in areas where chargers are more economically viable. Equally, preference should be given to installers that provide charging in underserved communities. In distributing funds, FHWA should also work to ensure that funds do not just subsidize existing plans for charging networks, but encourage the expansion of these networks. Finally, public funding will be needed in areas where private investment does not fill certain gaps. This includes areas where investment in rural and disadvantaged communities where EV adoption is likely to be slower. Guidelines should give preference to private investors that provide infrastructure in these underserved areas, and programs that ensure that funding spent in underserved communities directly benefits those communities.

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<sup>12</sup> Plug in America, *Satisfied Drivers, Optimistic Intenders*. (February, 2021). Available at: <https://pluginamerica.org/wp-content/uploads/2021/02/2021-PIA-Survey-Report.pdf>.

**f. Meeting current and anticipated market demands for EV charging infrastructure, including with regard to power levels and charging speed, and minimizing the time to charge current and anticipated vehicles (factor 8)**

Guidelines should make it clear that charging power should be appropriately matched to use case and meet users' needs. For example, if the infrastructure is intended for travelers along the alternative fuels corridor, chargers need to be sufficiently fast. If the infrastructure is instead placed in overnight parking areas, the need for fast charging may not be as imperative.

Charging stations should be as easy to use as oil and gas pumps. Stations should have multiple payment options that are both easy and non-discriminatory. At a minimum, EV charging stations should be required to accept credit and debit payments by chip card users. These requirements will help to ensure more equitable access to low-income drivers, many of whom do not have access to payment options such as cardless readers that are currently a requirement at some EV charging stations.<sup>13</sup>

**g. Any other factors, as determined by the Secretary (factor 9)**

As stated above, in developing guidelines FHWA must consider equity, to ensure that all types of communities benefit from EV infrastructure funding. In doing so, these guidelines should take into consideration that different communities have different needs. FHWA cannot overlook communities where there is unlikely to be broad scale adoption of EVs without targeted and significant investment. Instead, FHWA must look at ways this program can either encourage adoption of EVs, or better understand how EV infrastructure could help in these communities. As stated before, such decisions should be made with input from affected stakeholders.

In developing guidelines, FHWA should also consider the location of chargers. For example, chargers should be in locations that are safe, well lit, convenient, and accessible, i.e., they should be easy to find and identify.

FHWA should also specifically seek to minimize charging costs to consumers through this program. Charging infrastructure is only useful if it is affordable for consumers to utilize it. Furthermore, charging costs must be clear and transparent to consumers.

**IV. Recommendations for Charging and Fueling Infrastructure Program**

The comments related to the EV Charging Program should also apply to this program. As with the EV Charging Program, guidelines for the Charging and Fueling Infrastructure Program must allow FHWA to leverage existing funding in the most strategic way possible, ensuring not only long-term viability of charging infrastructure, but also equity in access to and benefits from such infrastructure.

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<sup>13</sup> NRDC, *California Moves to Make Paying for EV Charging Easier*. (August 2, 2019). Available at: <https://www.nrdc.org/experts/miles-muller/california-moves-make-paying-charging-easier>

Additionally, the vast majority of the funding, if not all, should be focused on truly low carbon fuels, like EV charging. There are currently no original equipment manufacturers producing natural gas or propane vehicles for consumers, they do not provide significant savings for consumers as compared to other low carbon emission vehicles such as EVs or hybrids, and their potential for reducing GHG emissions is very limited.<sup>14</sup> Ultimately investments in propane and natural gas fueling will not help the administration achieve its greenhouse gas reduction goals.

The IIJA requires that priority be given to “EV charging and eligible fueling infrastructure in rural areas, low-and moderate-income neighborhoods, and communities with a low ratio of private parking spaces to households or a high ratio of multi-unit dwellings to single family homes.”<sup>15</sup> While such prioritization is vital to ensuring equity in distribution of the funds, it will only be successful if the infrastructure funded by the program meaningfully benefits the target communities. To that end, it is vital to work with these target communities, and groups representing these communities to understand how grants would and could best provide meaningful benefits. Unlike the EV Charging Program, funding in this program need not exclusively focus on the alternative fuels corridor. While building out infrastructure along the alternative fuels corridor is vital for broad scale EV adoption, it is likely that such infrastructure will mostly be used by travelers and not by local communities for long-term changing needs. While such travel may generate economic benefits, FHWA should rely on grants provided under this program to ensure that target communities benefit from the actual infrastructure. Grants should prioritize funding to equity programs as opposed to providing incentives for those who are not low/moderate income.

Thank you for the opportunity to comment. CR looks forward to engaging with FHWA as it moves forward with development of these vital programs.

Sincerely,

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<sup>14</sup> United States Department of Energy, *Natural Gas Vehicle Availability*. Available at: [https://afdc.energy.gov/vehicles/natural\\_gas\\_availability.html](https://afdc.energy.gov/vehicles/natural_gas_availability.html). Consumer Reports, *Honda Civic Natural Gas Car Review* <https://www.consumerreports.org/cro/2012/03/honda-civic-natural-gas/index.htm#:~:text=All%20that%20makes%20the%20list,conventional%20Civic%20in%20fuel%20savings>.

United States Department of Energy, *Natural Gas Vehicle Emissions*. Available at: [https://afdc.energy.gov/vehicles/natural\\_gas\\_emissions.html](https://afdc.energy.gov/vehicles/natural_gas_emissions.html).

<sup>15</sup> 86 F.R. 67782, 67785