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Comments of Environmental Defense Fund

Additional submitted attachment is included below.

June 28, 2022

California Energy Commission
715 P Street
Sacramento, CA 95814

RE: 22-EVI-03 – National Electric Vehicle Infrastructure Deployment Plan Development, 2022-26 for CEC and Caltrans

Environmental Defense Fund (EDF) appreciates the leadership of the California Energy Commission ("CEC") and the California Department of Transportation ("Caltrans") in developing clean transportation strategies and innovative solutions throughout the state. We submit these comments for your consideration as you draft California's EV Infrastructure Deployment Plan.

California must be ready as money from the federal Infrastructure Investment and Jobs Act ("IIJA") becomes available, including formula funding from the National Electric Vehicle Infrastructure ("NEVI") program and competitive grants for charging and fueling infrastructure in communities and along highways. It will be critical to deploy investments in a way that promotes equity for low-income, pollution burdened, and rural communities; helps ensure that mechanisms are in place to facilitate effective vehicle-grid integration; and enables a seamless customer experience.

The Joint Office of Energy and Transportation has issued guidance about the NEVI program and will have forthcoming guidelines for competitive funds for charging. California should fully incorporate guidance from the Joint Office of Energy and Transportation into its state plan that is due to that office by August 1. Innovative, comprehensive, and equitable applications for competitive grant funds and NEVI formula funding should incorporate the following key considerations:

1. **California should accommodate the needs of medium- and heavy-duty vehicles that will utilize public charging.** California has the most advanced deployment goals for zero-emission medium- and heavy-duty vehicles ("MHDVs") in the nation, and the state has dedicated a significant amount of public and ratepayer funding to support the deployment of charging infrastructure to serve these vehicles. The NEVI program represents a unique opportunity to leverage federal funding to support public charging serving both electric light-duty vehicles and MHDVs traveling and charging along transit corridors. While many MHDVs will do most or all of their charging at their home base, some vehicles such as long-haul trucks and

transit buses will need on-route charging. In addition, as Caltrans and the CEC recognize, the public charging infrastructure that is designed for light-duty charging may also be utilized by medium-duty vehicles with comparatively small footprints and charging needs.[1] But, there must be a sufficient number of public charging stations that are designed to accommodate the larger size and batteries of these vehicles. For on-route charging, larger vehicles will need 350 kW fast chargers in order to charge in a reasonable amount of time and will need to charge at sites built with tractor trailers and other large trucks in mind. While Caltrans and the CEC are focusing on light-duty vehicles for near-term NEVI program formula funding, the agencies should at minimum ensure that the NEVI competitive grant funding and complementary state programs focused on MHDVs are supporting a similar buildout of charging infrastructure for these vehicles along travel corridors.

2. **This will be a multi-agency effort.** While Caltrans and the CEC will be key players in advancing IIJA funds for charging stations, coordination of this effort will be key to ensuring success. Working with other relevant state agencies, local governments, and other stakeholders to map out charging station gaps and accommodate state climate and clean energy goals will be a necessary part of this. In particular, the California Public Utilities Commission ("CPUC") and the state's electric utilities will have to have a robust role in this transition given their responsibility and control of their electric system and their expertise in where the grid can support new charging infrastructure, when chargers can enter service, and the timeline and cost of any grid upgrades needed to support additional chargers.

3. **Utility grid planning must account for public charging goals.** As an increasing number of electric vehicles, including MHDVs, utilize public charging, grid planning is needed that anticipates the impact of charging these vehicles on specific parts of the distribution grid and finds ways to mitigate that impact. Utility forecasts need to anticipate not just the state-wide scale of EV deployment but also the spatial distribution of the vehicles to understand the distribution-level impacts of their charging. The CPUC must ensure that the utilities' commission-approved EV charging rates, and/or their generally available commercial electricity rates, encourage managed charging while preserving fuel cost savings relative to gasoline and diesel to the extent possible. Policies that support co-siting EV chargers with other distributed energy resources like on-site solar and storage can also be a cost-effective way of mitigating grid impacts. Utilities can also provide an important complement to the technical assistance that the Joint Office is offering by ensuring there is a point person at each utility who can work with fleets that are utilizing public charging to ensure they understand the technology and rates, as applicable.

4. **California's plan should ensure that important technology standards are put in place that can ensure a good customer experience and help facilitate vehicle-grid integration.** Standards should be used to ensure that equipment, communication, safety and performance, and payment standards are structured to enhance customer experience, facilitate vehicle-grid integration, and avoid stranded assets. This will include, but is not limited to the following:

- Pre-determined safety and performance standards, informed by work being done by the National Institute of Standards and Technology and EnergyStar.

- Use of standards like Open Charge Point Protocol to allow open communication between the EV charging station and the network, Open Charge Point Interface to more easily allow access to charging station data such as location, accessibility and pricing, OpenADR to allow direct transmission of demand response signals to the customer via standardized communication, and a standard for open communication between the EV and the charging station. These will help ensure that charging stations are compatible with multiple EV brands and that drivers don't have to worry about whether they can use a particular network.
- Charging stations should have open payment methods that don't artificially limit how customers are able to utilize these stations.
- All communication that takes place between the EV and EVSE should be up to date with the latest standards and protocols, including the NIST catalog of standards, and Transport Layer Security in order to protect sensitive customer information from cyber-attacks.
- In line with the Joint Office guidance, charging stations should use CCS ports, which are compatible with multiple OEMs, to avoid a situation in which drivers won't be able to find a charging station they can use.

5. **California is rightly committed to ensuring that 40% of charging station benefits actually accrue in pollution-burdened communities.** Marginalized communities are much more likely to be sited near depots, freight corridors, and other truck-attracting facilities which means they are more likely to suffer the harmful impact of diesel truck and bus pollution. Despite bearing a disproportionate burden of transportation pollution, they are also more likely to live in "charging deserts." As such, ensuring that public charging is available for residents' cars and for trucks that park in over-burdened communities should be a top priority. EDF strongly support's California's commitment to meet or exceed both the Justice40 initiative's goal of 40% of benefits accruing to disadvantaged communities, and the state's goal of 50% of funding supporting disadvantaged and/or low-income communities under California's definitions.[2] It is similarly encouraging that the plan's quantification of benefits includes not just direct economic benefits, but also environmental benefits of reductions of local air pollution and greenhouse gases.[3] Because MHDVs are responsible for a disproportionate amount of this pollution when compared to their share of California's on-road vehicles, and this pollution tends to be concentrated in low-income and communities of color, application of these metrics at the community level will show that targeting funding to support the electrification of these trucks and buses in disadvantaged communities will deliver outsized equity and environmental benefits. As the draft plan recognizes, these benefits should be paired with investment in workforce training, ensuring that jobs are being offered to residents of these communities, alongside key worker protections and training programs.

6. **California should ensure that there are electric vehicle charging stations on public roads and at public locations that are accessible to residents of and businesses in rural communities.** California must ensure that rural communities are not left behind but are a part of the electric vehicle transition. Public charging can serve residents and businesses who can't afford or don't have access to charging at their home or business, as well as drivers, including long-haul vehicle drivers, taking

long trips to or through these less populated areas. Additionally, while air pollution from vehicles may not be as pernicious in California's rural communities as in its urban areas, agricultural and other point and non-point pollution sources cause significant harm in these communities. Enabling a transition to electric vehicles could help mitigate those cumulative impacts.

Thank you for the opportunity to submit these comments.

Respectfully submitted,

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