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Comments on CTP Investment Plan draft

Additional submitted attachment is included below.

FIRSTELEMENT FUEL

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June 21, 2024

Mr. Benjamin Tuggy
California Energy Commission
715 P Street
Sacramento, CA 95814

Subject: Draft Staff Report, *2024-2025 Investment Plan Update for the Clean Transportation Program*

Dear Mr. Tuggy and CEC Staff,

Thank you for the opportunity to comment on the subject Draft Plan and your continued efforts to transition the state's transportation sector to zero-emission and low-carbon vehicles. Due to the CEC's continued support, FirstElement Fuel (FEF) has become the largest retail, light-duty (LD) hydrogen refueling station (HRS) provider in California and the United States. We are also currently opening the largest, fast-fill, high-capacity heavy-duty (HD) truck HRS at the Port of Oakland, again due to the support from the CEC. This station is the first of its kind and would not have been possible without the experience we gained through deploying liquid hydrogen LD stations. Based on these hard-earned lessons, we offer the following recommendations.

Utilize Shell Turnback Funds for LD HRS

The grant award to Shell under GFO-19-602 was originally intended to support the LD fuel cell vehicle market. The CEC should honor that commitment to comply with the original legislative directive under the Clean Transportation Program (CTP) to fund 100 HRS as well as the subsequent Governor's Executive Order B-48-18 for 200 stations.

We recognize the GFO instituted a single applicant cap of 45%, and we appreciate that FEF received the maximum funding under that rubric. However, that GFO was issued four years ago when more station providers were eager to build stations. As stated in the GFO, "The CEC reserves the right, at its sole discretion, to modify the Single Applicant Cap."¹ We believe that due to the circumstances of significant returned funds, FEF's history of success, and the historically low, Low Carbon Fuel Standard (LCFS) capacity credit prices, the CEC should exercise this discretion and consider providing additional funds to the GFO awardees.

These additional funds could be used to offset the increased costs for HRS since the original budgets were developed in 2019. Construction, equipment and permitting HRS costs have increased by almost \$2 million per station. And with the LCFS capacity credits forecast to be depressed for another year or more, providing additional initial capital per station would accelerate the buildout of the existing awarded stations. Additional funds could also be used to make the stations medium-duty (MD) ready as discussed below.

The LD HRS Support Pickup Trucks and MD Trucks

There is a common misconception that MD trucks (Class 2b-6) will fuel with HD trucks at large stations, so MD is often linked with HD. Although this may occur, the more frequent operational behavior is that work trucks, package delivery vans, stake bed trucks, etc., will fuel at local neighborhood fueling stations. Indeed, these trucks will likely use the LD nozzle and receptacle as opposed to the high-flow,

¹ https://www.energy.ca.gov/sites/default/files/2020-05/01_GFO-19-602_Application_Manual_Addendum_04_ADA.docx

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HD J2601-5 protocol. The United States Council for Automotive Research (USCAR), a consortium between GM, Ford, and Stellantis, published a white paper in 2023 indicating the infrastructure needs for MD trucks are very similar to LD stations but must accommodate larger vehicle tank sizes (greater than 10 kg), more storage capacity and faster refresh and pumping capacity². Additional funding for LD HRS could reasonably be used to upgrade the awarded stations to make them LD/MD compatible.

In conclusion, we urge the CEC to not abandon the LD fuel cell vehicle market. Three car manufacturers are already selling vehicles and others are poised to bring pickup trucks to the market in the next few years. Despite the conventional wisdom that “hydrogen only makes sense for HD trucks”, no HD vehicles are being mass-produced. The LD/MD market will create the supply chains and economies of scale needed for HD infrastructure. We urge the CEC to continue its leadership and support to enable hydrogen and fuel cell vehicles in *all vehicle classes* by prioritizing infrastructure for the vehicles that are already commercially available.

Sincerely,



Matt Miyasato, Ph.D.
Chief Public Policy & Programs Officer

² https://uscar.org/wpfd_file/2023-uscar-medium-duty-h2-infrastructure-white-paper/