DOCKETED	
Docket Number:	24-EVI-01
Project Title:	U.S. Department of Transportation’s Charging and Fueling Infrastructure Grant Program
TN #:	262014
Document Title:	Roxana Bekemohammadi Comments - Re US Department of Transportation’s Charging and Fueling Infrastructure Grant Program
Description:	N/A
Filer:	System
Organization:	Roxana Bekemohammadi
Submitter Role:	Public
Submission Date:	2/27/2025 2:06:51 PM
Docketed Date:	2/27/2025

Comment Received From: Roxana Bekemohammadi
Submitted On: 2/27/2025
Docket Number: 24-EVI-01

Re US Department of Transportationâ€™s Charging and Fueling Infrastructure Grant Program

Additional submitted attachment is included below.

February 26, 2025

VIA ONLINE PORTAL:
https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=24-EVI-01

California Energy Commission
Docket Unit, MS-4
Docket No. 24-EVI-01
715 P Street
Sacramento, California 95814

Re: U.S. Department of Transportation's Charging and Fueling Infrastructure Grant Program

Dear Commission Staff,

We appreciate the opportunity to share our thoughts on the U.S. Department of Transportation's Charging and Fueling Infrastructure Grant Program under the Bipartisan Infrastructure Law. The United States Hydrogen Alliance (USHA) is a non-profit association of members advocating for the development, deployment and utilization of clean hydrogen in all 50 states. We serve the hydrogen industry through state and federal policy advocacy, market development, and community building. Our mission is to leverage the unique attributes of hydrogen to reduce emissions across traditional sectors, increase energy resiliency and diversity, enhance local economies and workforces, and protect the nation domestically and abroad.

Battery electric Class 8 trucks face significant limitations due to long charging times and a limited range per charge, making them unsuitable for long-haul freight. The infrastructure needed to support these trucks, especially for rapid recharging, is not yet in place. Hydrogen, on the other hand, offers a practical solution for heavy-duty trucking. With fast refueling times comparable to diesel and a much longer range, hydrogen fuel cell vehicles can meet the operational needs of Class 8 trucks without the downtime associated with electric vehicle (EV) charging. As the hydrogen infrastructure continues to grow, it provides a more efficient and feasible alternative for long-distance freight transportation. We applaud the Commission for supporting hydrogen as a zero emission fueling infrastructure solution.

We write to provide recommendations based on the questions asked during the Joint Workshop on California Charging and Fueling Infrastructure (CFI) Program Concepts.

1. **Distribution of Stations per Corridor Group and Corridor:** The distribution of hydrogen refueling stations along the I-5 corridor requires reconsideration. Given the typical range of a Class 8 hydrogen fuel cell electric vehicle truck is approximately 450-500 miles, one station per state along the I-5 corridor is insufficient. The I-5 corridor spans 1,381 miles, and with an average refueling range of 350-400 miles, a minimum of five stations would be required to ensure adequate coverage. This assessment does not account for existing stations, such as the one active station in Los Angeles, which reduces the need for additional stations.
2. **Minimum Distance Between Stations:** To accommodate the range of Class 8 trucks and provide flexibility for off-corridor travel, a maximum station spacing of 250-350 miles is recommended. This distance would not only support a round trip from I-5 to the Port of Los Angeles but also allow for additional flexibility in station placement based on specific travel routes and needs.
3. **Required Amenities:** While we encourage the inclusion of amenities such as restrooms, truck parking, and food services to enhance the user experience, these should not be mandatory for funding eligibility. Instead, these amenities should be encouraged as enhancements to the refueling experience, but should not constitute a requirement for infrastructure funding. We would recommend partnering with already established stations, such as Love or Pilot Flying J truck stops, so the infrastructure and retail partners are already in place.
4. **Optimal Station Capacity for Public MDHD Stations:** For public medium- and heavy-duty (MDHD) hydrogen refueling stations, a capacity of at least 2,000 kg of hydrogen per day is recommended, particularly in regions where hydrogen can be locally sourced. In an ideal scenario, the station would have a capacity of around 4,000 kg of hydrogen per day to charge roughly 100 trucks each day. A hub-and-spoke model that reduces shipping and liquefaction expenses would be ideal, with drop-and-swap gaseous hydrogen systems or liquid hydrogen delivery systems offering redundancy via gaseous dispensing to ensure continuous fuel availability and flexibility in operation. Additionally, we recommend that EV infrastructure co-located with hydrogen infrastructure be given preference in the selection process for funding. This would allow for a seamless transition to zero emission transportation and maximize the utility of each refueling location. Hydrogen-powered fuel cell-driven EV charging stations should also be supported as part of this infrastructure development, ensuring both sectors benefit from integrated, sustainable fueling solutions.

5. **Mobile Refuelers as an Interim Solution:** In addition to stationary and permanent hydrogen refueling infrastructure, we believe that allowing for interim hydrogen refueling solutions, such as mobile refuelers, would be an essential bridge for ensuring the continuity of operations for Class 8 trucks during the early stages of infrastructure deployment. Mobile refuelers can provide the necessary flexibility and enable truck operators to meet fueling needs while stationary stations are being developed, ensuring that the trucking industry remains operational and able to transition to hydrogen as a fuel source without significant downtime or operational interruptions.
6. **Cap on Public Funds:** We believe the current $18 million cap per awardee is higher than necessary for the development of hydrogen refueling stations. Our members have developed hydrogen refueling stations with $12-15 million, but we recognize this is dependent on what infrastructure is present at the site at the time of construction. A lower cap would allow funds to be distributed across a greater number of awardees, reducing the financial risk associated with large-scale projects and ensuring a more diversified and resilient market. This would also mitigate the risk of market disruption in the event of a large operator exiting the market.
7. **Per-Site Award Cap:** Implementing a per-site award cap on public funds would help ensure a more equitable distribution of resources. This approach would allow for greater participation from smaller operators and promote a competitive and diverse market, reducing reliance on a small number of large-scale operators.
8. **Application Preparation Time:** A window of six to eight weeks is deemed sufficient for preparing comprehensive applications. This timeframe provides applicants with enough time to submit high-quality proposals, provided the application guidelines and submission requirements are clear, accessible, and appropriately communicated.
9. **Technical or Feature Requirements for Hydrogen Stations:** It is essential that hydrogen refueling stations accommodate the J2601-2 and J2601-5 protocols for H70 and H35 refueling, respectively, to ensure consistency and interoperability across stations. We recommend adopting a technology-neutral approach when considering storage and dispensing methods. The selection of storage and dispensing technology should be based on the specific requirements of each project, including technical performance, economic feasibility, and operational efficiency. We encourage a focus on clear performance criteria that allow for the most suitable and cost-effective solutions to be implemented. Furthermore, we recommend involving industry partners with hands-on experience in building hydrogen infrastructure to ensure that projects are both feasible, proven and cost-effective, rather than relying solely on outside consultants with less specialized expertise.

10. **Station Availability:** Stations should be open and prepared for 24/7 fueling services to ensure that hydrogen fueling is always accessible for public use. However, we also recognize the potential for private companies to benefit from dedicated fueling hours. We recommend allowing for the flexibility of "open" and "closed" hours, where certain periods of the day (such as overnight) could be reserved for private use, ensuring that these companies can fully utilize the facility during lower demand times. Additionally, all stations should be registered on station maps to provide real-time information on operational status, ensuring transparency and accessibility for all users.

To conclude, with these recommendations, the Charging and Fueling Infrastructure Grant Program will play a pivotal role in furthering the hydrogen economy along the west coast and beyond. We believe this program will provide significant benefits for hydrogen projects across multiple sectors, including heavy-duty vehicles, long-haul transportation, and industrial applications. By supporting the growth of hydrogen infrastructure and addressing key challenges related to station distribution, capacity, and funding, the program will help solidify hydrogen as a practical and sustainable solution for the future of clean transportation.

We at the United States Hydrogen Alliance thank you for your time and consideration. Please reach out to us if you have any questions.

Respectfully,

R. Bekemohammadi

Roxana Bekemohammadi
Founder and Executive Director
United States Hydrogen Alliance