DOCKETED	
Docket Number:	24-EVI-01
Project Title:	U.S. Department of Transportation's Charging and Fueling Infrastructure Grant Program
TN #:	256764
Document Title:	FirstElement Fuel Comments - Hydrogen Refueling Infrastructure
Description:	N/A
Filer:	System
Organization:	FirstElement Fuel
Submitter Role:	Applicant Representative
Submission Date:	6/10/2024 10:23:59 AM
Docketed Date:	6/10/2024

Comment Received From: FirstElement Fuel
Submitted On: 6/10/2024
Docket Number: 24-EVI-01

Hydrogen Refueling Infrastructure

On behalf of FirstElement Fuel, we hope the West Coast region will also consider H2 refueling along the corridor. We have provided responses to the RFI (attached).
Sincerely,
Matt Miyasato, Ph.D.
Chief Public Policy & Programs Officer

Additional submitted attachment is included below.

Responses to this RFI will be publicly available.
This RFI seeks feedback on the following questions (you need only to answer questions applicable to you or your organization):

1. Please disclose your business type and vehicle class, if applicable. Are you a driver, fleet operator, truck stop operator, installer, manufacturer, utility, public agency, or other? Are you part of a small, veteran-owned, woman-owned, or minority-owned business?
FirstElement Fuel is a retail hydrogen station provider.

2. Would you consider applying for CFI grant funding for site development if the tri-state agencies are awarded funding?
Yes

3. Do you already operate or are you planning to use zero-emission battery electric MDHD vehicles in the next five years? Please use a 1-5 rating scale where 1= least likely and 5= most likely. Please add additional information regarding your (planned) use of zero-emission battery electric MDHD vehicles as desired.
5 (most likely)
We are planning to utilize zero emission hydrogen fuel cell trucks to deliver hydrogen to our stations.

4. What type of MDHD ZEV public charging do you anticipate being most important in the next three years (2024-2027) – en route or overnight charging?
Fast fill hydrogen refueling will be important for trucks traveling along the corridor.

For what purposes do you anticipate needing public charging infrastructure – drayage, last-mile, delivery, long-haul freight, other?
Class 8 drayage will likely be the one of the first uses as well as class 2-4 work trucks for local utilities, package delivery fleets and municipal fleets.

5. From 2024-2027, what is your first priority for power level and number of charging ports for public en route charging at a station? For public overnight charging? Do you have a second or third configuration preference?
We require 1.2MW for a large refueling station that can fuel 200 heavy-duty trucks, 400 MD trucks and 600 LD vehicles a day.

For a LD fueling station, we require 120 kW to fuel approximately 400 cars a day.

6. Please identify the percentage of pull-in or pull through parking preferred and other desired station configurations at a given site. Describe the vehicle class and vocation considered when making this recommendation if it differs from the information provided in question 1.
Our HD station can accommodate class 4-8 trucks with conventional “pull through” fueling just like a conventional refueling station.

We also have four LD fueling positions separate from the HD dispensers.

7. What distance should separate charging stations to support zero-emission trucks along the I-5 corridor? Provide description of typical route or use-case considered when making this recommendation. Describe the vehicle class and vocation if it differs from the information provided in question 1.
Class 8 fuel cell trucks have ranges from 300-500 miles, so stations can be spaced widely apart, within 250 miles of each other.

8. What amenities are you seeking at a charging facility? Is there a desire for additional parking at a facility beyond charging stalls? Is there a desire for reservation options?
With fast-fill hydrogen stations, reservations are not necessary.
Additional amenities, such as restrooms and convenience stores, or for long-haul locations, such as overnight rest spots, would be welcome additions depending on the location and distance between stations or other rest stops.

9. If possible, provide any general cost estimates for MDHD charging stations you have designed, built, or have experience with, including charger power levels and number of chargers installed. Please provide a range of public cost share as a percentage of total project cost that would be necessary to support more public charging stations to serve zero-emission trucks along freight corridors.
Our current estimates for a fast-fill, HD hydrogen refueling station is $15M. The station is capable of

- 200 trucks per day
- Back-to-back fills
- 10 minute fills
- 2-4 fueling positions
- 4 tons H2 on-site (with additional storage possible with tanker trucks when needed)

If there are no capacity or fuel sales credits (as proposed by CARB in the LCFS regulation), we would request 60% capital and an on-going O&M subsidy until sales meet 50% station capacity.

10. Use the maps under the “Corridor Segments” section below to identify locations within the National Zero-Emission Freight Corridor Strategy hubs along I-5 (identified in the map segments below) you anticipate needing EV charging in the next three years (2024-2027)[8]. You may identify sites where you plan to or would be interested in building charging stations or where you would like to see charging as a consumer. Please detail preferred locations across California, Oregon, and Washington. For each location, please provide desired site characteristics including number of chargers, power levels, type of charging desired (overnight or en route), and vehicle class and vocation if the information differs across locations or differs from the information provided in the questions above.

We currently have a site lease for a HD station in Kettleman City (CA Segment 2, Figure 6) under a CEC grant.

All sites would have the same capabilities as identified in response to question 9.
We are open to other HD stations outside of CA provided the throughput is sufficient or a policy mechanism (such as capacity credits) to offset operating costs while throughput increases.

11.If you represent a utility, please use the maps under the "Corridor Segments" section below to identify locations within the National Zero-Emission Freight Corridor Strategy hubs along I-5 (identified in the map segments below) where there may be capacity for 5 megawatts or more of power in the next five years. This information may be considered in the development for future Requests for Proposals.
NA