<table>
<thead>
<tr>
<th><strong>Docket Number:</strong></th>
<th>19-TRAN-02</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Title:</strong></td>
<td>Medium- and Heavy-Duty Zero-Emission Vehicles and Infrastructure</td>
</tr>
<tr>
<td><strong>TN #:</strong></td>
<td>233651</td>
</tr>
<tr>
<td><strong>Document Title:</strong></td>
<td>HD FCET industry stakeholders CaFCP Comments - HD FCET industry stakeholders CaFCP feedback CARB CEC ZE Drayage Truck and Infrastructure Pilot Project workshop June 11</td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Filer:</strong></td>
<td>System</td>
</tr>
<tr>
<td><strong>Organization:</strong></td>
<td>HD FCET industry stakeholders CaFCP</td>
</tr>
<tr>
<td><strong>Submitter Role:</strong></td>
<td>Public</td>
</tr>
<tr>
<td><strong>Submission Date:</strong></td>
<td>6/25/2020 5:25:24 PM</td>
</tr>
<tr>
<td><strong>Docketed Date:</strong></td>
<td>6/26/2020</td>
</tr>
</tbody>
</table>
HD FCET industry stakeholders CaFCP feedback CARB CEC ZE
Drayage Truck and Infrastructure Pilot Project workshop June 11

Additional submitted attachment is included below.
June 25, 2020

Marc Perry & Ryan Murano  
California Energy Commission & California Air Resources Board  
Sacramento, CA 95814

Re: HD FCET industry stakeholders CaFCP feedback CARB/CEC Zero Emission Drayage Truck and Infrastructure Pilot Project workshop June 11 (docket#: 19-TRAN-02)

Dear Marc and Ryan,

Thank you for organizing and hosting a pre-solicitation workshop for the planned solicitation that will provide funding for Zero-Emission Drayage Truck and Infrastructure Pilot Projects. We appreciate the joint effort of California Energy Commission and California Air Resources Board to support vehicle and infrastructure progress towards commercialization through operational fleets of fuel cell electric vehicles and/or battery-electric vehicles, as both technologies are essential to achieve California’s emission reduction and energy goals.

The following response reflects areas identified by the heavy-duty fuel cell electric truck industry stakeholders of the California Fuel Cell Partnership. This feedback is intended to provide supplemental comments to those made during the workshop by participants.

To create maximum flexibility for the targeted 2-3 projects operating truck fleets and supporting fueling infrastructure, we submit the following recommendations:

- Create a balance between investments in battery-electric and fuel cell electric drayage truck technologies to allow for fair evaluation and progress towards early commercialization of both zero-emission vehicle technologies.
  - Despite the intent to focus on a technology agnostic path forward, this does not appear to happen in practice. The combination of numerous early stage transition actions toward heavy-duty truck electrification and various supporting policy drivers and decisions, create an unbalanced funding support for battery-electric trucks.

- Emphasize the need for high operational performance for both real-world useable operational range per truck and fueling time. To meet customer needs, performance should align as much as possible with conventional truck technology and logistics. For example, during the rating of proposals:
  - Assign more points to trucks with 200 miles or more of operational range on a fully charged battery- or filled hydrogen storage system (on-board of the truck) compared to the minimum range requirement.
  - Assign points scaled to the performance capability of the proposed fueling infrastructure to fully fuel or charge the fuel storage system of individual trucks. A fueling time of less than 30 minutes receives more points, and even
greater points for 15 minutes or less, to commensurate with current fueling
times of conventional HD drayage trucks.

- Based on our experience with the industry standardization of the fueling interface for
  light-duty ZEVs, a major factor contributing to broad rollout and long-term market
  success is the shared access of fueling infrastructure through the use of standards or
  non-proprietary fueling interfaces. Applying the same approach for each HD ZEV
  technology will help circumvent the market segmentation that currently exists in the
  light-duty car and HD transit bus battery-electric vehicle market and its supporting
  charging infrastructure.

- Assign more points to truck fueling infrastructure proposals that include renewable
  content from newly sourced renewable energy sources compared to those proposing
  the use of existing renewables already available in the system.

- Consider removing the minimum number of trucks required per fleet location per the
  discussion between staff and participants during the workshop.
  - Truck fleet operator needs should be directive for the sizing of the fleets
    proposed and proposed fleet sizes can be assumed to contribute to the next step
    in technology development towards commercialization.

Because the State of California Air Resources Board and Energy Commission each cover a different
component of proposed drayage truck fleet projects (trucks and infrastructure), we also submit the
following questions:

- How will the joint agencies balance proposal ratings for the truck and infrastructure components?
- How will the agencies ensure that trucks included in respective proposals provide the maximum
  legally allowable freight carrying capacity?
  - Fleet operators need to have maximum payload capacity available.
  - Trucks operated in multiple shifts per 24-hour period need to move the same amount of
    freight as conventional trucks.

Thank you for the opportunity to provide these recommendations for upcoming solicitation. We look
forward to the release of the solicitation that reflects the issues presented above, resulting in a
balanced portfolio of selected projects ensuring progress towards a technology diverse, self-
sustaining, heavy-duty zero-emission vehicle market.

Respectfully,

[Signature]

Nico Bouwkamp
Technical Program Manager
California Fuel Cell Partnership