

<b>DOCKETED</b>	
<b>Docket Number:</b>	19-TRAN-02
<b>Project Title:</b>	Medium- and Heavy-Duty Zero-Emission Vehicles and Infrastructure
<b>TN #:</b>	260861
<b>Document Title:</b>	Request for Information Medium- and Heavy-Duty Zero-Emission Vehicle Public Charging
<b>Description:</b>	The California Energy Commission (CEC) is seeking information from medium- and heavy-duty (MDHD) industry stakeholders to better define “public” charging and refueling infrastructure for CEC funding opportunities.
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<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
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**CALIFORNIA ENERGY COMMISSION**

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[energy.ca.gov](http://energy.ca.gov)



## **Request for Information**

### **Medium- and Heavy-Duty Zero-Emission Vehicle Public Charging**

**December 30, 2024**

**Docket # 19-TRAN-02**

**Written Comments Due by January 24, 2025, at 5:00 p.m. PST**

#### **Purpose of Request:**

The California Energy Commission (CEC) is seeking information from medium- and heavy-duty (MDHD) industry stakeholders to better define “public” charging and refueling infrastructure for CEC funding opportunities.

Responses received from the Request for Information (RFI), as well as staff research and follow-up meetings, will influence the CEC’s determination on eligibility criteria for upcoming CEC solicitations. Different funding opportunities may have different rules based upon the objective of the particular funding solicitation.

#### **Background:**

As California’s lead for zero-emission vehicle (ZEV) infrastructure, the CEC administers the Clean Transportation Program, which provides approximately \$100 million per year for projects that reduce greenhouse gas (GHG) emissions within the transportation sector. In partnership with other state agencies, the CEC has made MDHD ZEV charging a priority in order to ensure sufficient infrastructure for ZEV fueling for fleets transitioning to zero-emission, as required by the California Air Resources Board’s (CARB’s) Advanced Clean Fleets (ACF) and Advanced Clean Trucks (ACT) regulations.

The CEC’s [second Electric Vehicle Charging Infrastructure Assessment \(AB 2127\)](https://www.energy.ca.gov/publications/2024/assembly-bill-2127-second-electric-vehicle-charging-infrastructure-assessment) estimates that to support MDHD electric vehicles (EVs), California will need about 114,500 chargers (109,000 depot chargers and 5,500 en route chargers) for 155,000 vehicles in 2030, and 264,000 chargers (256,000 depot chargers and 8,500 en route chargers) for 377,000 vehicles in 2035.

(<https://www.energy.ca.gov/publications/2024/assembly-bill-2127-second-electric-vehicle-charging-infrastructure-assessment>)

Low-speed depot charging may not be an option for certain types of vehicles such as drayage trucks used for multiple shifts, leased vehicles that do not return to depots overnight, and owner-operator vehicles without dedicated depots. Therefore, the CEC has determined that both depot (private) and en route (public) charging will be important to ensuring fleets, especially those with more urgent targets under ACF/ACT transition successfully to ZEVs.

For en route charging, a mix of appointment-based and first-come, first-served charging will be necessary. Stakeholders have stated that reservation systems are required as drivers need to know for certain they will have a charger available when they arrive to avoid delays. If it's a planned rest period or over-night stop with the dual purpose of charging, drivers still need certainty that a space and charger will be available. Additionally, for destination locations, the dwell time will likely be longer due to time for loading or unloading the truck. In this case, charging should be available at the loading/unloading area to charge while the truck is stopped. Additional charging may be needed for trucks to "top up" if they did not receive enough of a charge during loading/unloading or if there is a wait before loading/unloading.

### **Request for Information:**

The CEC is accepting public comments under this RFI to inform staff of the current state of the MDHD ZEV infrastructure market to establish eligibility criteria for upcoming funding opportunities. First-come-first-served describes a scenario where any vehicle can pull up to any charging port or station and use it on a first-come-first-served bases. A reservation system can have different variations but essentially refers to a system where a driver or fleet can reserve a charger ahead of time. The RFI seeks feedback on the following questions regarding MDHD ZEV infrastructure:

1. What does the CEC need to consider when developing "public" / en route charging eligibility criteria for CEC funding opportunities?
2. How should the CEC plan for the state's future MDHD charging needs to both accommodate fleets that will need access to chargers while en route to a destination (similar to the diesel truck stop model where the ports are fully publicly accessible first-come-first-served) vs. fleets that need certainty that charging will be available and accessible when it comes time to charge (the reservation system model)?
3. Is a reservation system for use of public chargers needed to meet the needs of the trucking industry?
4. What reservation systems exist that could allow use by more than one trucking company?
5. Does a "Trucking-as-a-Service" (Taas) model in which trucks are leased and guaranteed chargers by a site operator provide enough public opportunities for trucks that are not leased through the site operator?
6. Should there be a certain percentage of chargers available to the public at all times? Should there be a certain percentage of chargers available for reservation at all times?
7. What is the ideal reservation system or process for MDHD truck charging?
8. If a portion of chargers must remain first-come-first-served, what ratio for reservation vs. first-come-first-served chargers would you recommend?

9. Which configuration would be preferred:
  - a. A site where all chargers can be reserved but can also be used on a first-come-first-served basis if a charger is not reserved or in use?
  - b. A site where a portion of the chargers are reservation only and another portion first-come-first-served only? In this configuration, is there an optimal percentage of chargers that are always available (not available for reservation)?
10. If a truck is charging at a first-come-first-served charger at a site that also allows reservations, and a scheduled reservation arrives while the charger is still in use, what is the protocol?
11. The CEC's Clean Transportation Program administers public funding, which must provide a benefit to the state. How does a project with a reservation system benefit the state of California?
12. Are there driver safety or equipment protection issues that the CEC must consider when determining whether a charger should be "public"? Could a charging site be open to the public without attendees on site?
13. Are there standardization or communication protocol issues that the CEC needs to consider when developing "public" / en route charging eligibility criteria for CEC funding opportunities?
14. Please describe your optimal public charging network that is a mix of first-come-first-served and reservation systems throughout CA.
15. Please describe your optimal site configuration. It may be 100% first-come-first served, 100% reservation system, or a combination of the two.
16. If using a reservation system, please describe your optimal set of rules and parameters of how a reservation system would work.

### **How to Provide Information:**

Respondents to this RFI should not include any proprietary or confidential information. Comments may be submitted through **5:00 p.m. on Friday, January 24, 2025** using the e-commenting feature at **19-TRAN-02**.

A full name, email address, comment title, and either a comment or an attached document (.doc, .docx, or .pdf format) is mandatory. After a challenge-response test is used by the system to ensure that responses are generated by a human user and not a computer, click on the "Agree & Submit Your Comment" button to submit the information to the CEC's Docket Unit.

Written comments, attachments, and associated contact information included within the documents and attachments (such as address, phone number, and email address) become part of the viewable public record and searchable on the internet.

Interested stakeholders are encouraged to use the electronic filing system described above to submit information. If you are unable to submit electronically, a paper copy of your information may be sent to:

California Energy Commission  
Docket Unit, MS-4  
Re: Docket No. 19-TRAN-02  
715 P Street  
Sacramento, CA 95814-5512

Email responses to: [docket@energy.ca.gov](mailto:docket@energy.ca.gov) with the subject line stating "MDHD ZEV Public Charging".

For information, please contact Elizabeth John at [Elizabeth.John@energy.ca.gov](mailto:Elizabeth.John@energy.ca.gov) or (916) 207-2046.

The RFI is embedded in its entirety in this notice and available free on the California Energy Commission website at [www.energy.ca.gov](http://www.energy.ca.gov).

News media inquiries can be directed to the Media and Public Communications Office at (916) 654-4989 or at [mediaoffice@energy.ca.gov](mailto:mediaoffice@energy.ca.gov).