

**DOCKETED**

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## **Volvo Group North America Comments**

*Additional submitted attachment is included below.*

California Energy Commission  
1516 9<sup>th</sup> Street  
Sacramento, CA 95814

Date: 2021-10-01

Submitted to: Docket: 20-FINANCE-01

**Re: Request for Information (RFI) on Medium and Heavy-Duty Zero Emission Vehicle Charging and Refueling Infrastructure Potential Loan Program**

Dear CEC Commissioners and staff

Volvo Group North America (Volvo Group) thanks the California Energy Commission (CEC) for this request for information to inform staff of the current state of the medium- and heavy-duty (MHD) zero-emission vehicles (ZEV) infrastructure market and establish if there is a demand for a loan program in this area. Below is our feedback on the following questions regarding MHD ZEV infrastructure and demand.

**1. What vehicle segments, vocations, and/or locations of the MHD clean transportation infrastructure system are most amenable to a loan program at this time? Additionally, what portions of infrastructure are most amenable (e.g., in front of the meter, behind the meter, EVSE, transformers, etc.)? What evidence exists to substantiate these claims?**

- The operational aspects and economics of the MHD vehicle segments make it more appealing for a loan program. A heavy-duty truck (a “Class 8” truck) is deployed in a variety of applications, and so, we recommend that the loan program consider a variety of applications (and not prioritize any single application) such as regional pickup and delivery, port drayage, refuse collection, and city deliveries.
- Loans should include end-to-end project financing, covering charging hardware, software, maintenance, and behind-the-meter upgrades (to-the-meter upgrades should be covered by utility programs). This should be applicable for depot and public charging sites.
- There are 0 publicly accessible stations for MHDVs in California today. There are less than 10 private sites (with each site less than 5 charging stations). Neither of these sites are owned/operated by small- or medium-sized fleets. Almost all of these sites have been funded by funding from a state agency.

**2. What examples of successful loan programs can you cite, ideally in transportation infrastructure in other geographies, or as a second-best example, in other sectors? What are the key features of these programs that CEC should look to replicate?**

- An example of a successful loan program is the Paycheck Protection Program (PPP) to support small businesses through the pandemic. In this program, loan recipients that achieved stated goals were not required to repay the loans, effectively turning them into grants. A second example is the housing market, where Fannie Mae and Freddy Mac purchase loans from lenders, providing liquidity and stability to the mortgage markets and ensuring affordability.
- A similar approach could be used by the CEC for infrastructure, purchasing loans issued by financial services entities experienced in the transportation sector, to fund charging infrastructure (for MHD ZEV purchased), thereby providing liquidity, increasing affordability, and reducing the uncertainty for all stakeholders. Furthermore, these programs could target specific geographic locations (such as communities with disproportionately poor air quality).

**3. How should a loan program be structured to deliver maximum effectiveness? What design features matter most to induce private capital participation? How can a loan program work optimally with public programs like the LCFS, the Renewable Fuel Standard and others of relevance? In particular, how can a loan program be structured to work alongside grant programs run by the state and other entities?**

- CEC should work with existing finance institutions experienced in financing heavy-duty equipment and charging infrastructure, purchasing infrastructure loans (for these entities) while relying on their existing structure for credit evaluation, debt servicing, and customer service. This way the CEC can focus on increasing the reach and effectiveness of funds without replicating existing public programs. Below are two ideas.
  - Allow LCFS credits to be applied to the repayment of CEC-guaranteed loans. This can be in the form of a usage-based repayment system, where payments are tied to the usage of the equipment or Carbon footprint reduction.
  - Loans could also be used in conjunction with the HVIP program to spread the remaining costs of the asset at lower interest rates for a longer period of time, thereby further mitigating capital investments.

**4. In which instances and under what program designs would you prefer a loan over a grant? Would reduced reporting requirements or a streamlined application process cause you to prefer a loan over a grant?**

- While the attractiveness and benefits of grants are clear, they usually have clauses that could complicate project execution. This may deter prospective fleets, especially the small- and medium-size fleets that may not have the

resources nor training to comply with the grant program parameters. Grants also have the downside of being subject to geopolitical changes that may abruptly impact program funding from one budget cycle to the next.

- Loans, on the other hand, can be a potentially simpler (less administrative) and flexible pathway that can be designed to complement grants. A successful loan program necessitates a streamlined process, somewhat looser credit requirements, and simple compliance requirements, potentially with the opportunity for income-based repayment or milestone-based forgiveness.

#### 5. How can a loan program reach priority populations, including both by directly providing capital to these populations, and by ensuring that resulting infrastructure projects deliver meaningful benefits?

- While a loan program could be broad-based, especial incentives could be structured into the program (such as lower rates, credit guarantees, or repayment forgiveness) for priority populations when certain conditions are met. Special incentives could also be used to de-risk operations, for example providing residual value guarantees, or usage-based repayment terms.
- Additional criteria could also include tying the loan to MHD ZEV purchase/ownership, geographic location, fleet size, company revenue, facility ownership, and demographics.

#### 6. What Evaluation, Management and Validation (EM&V) framework should be used to evaluate the success of a loan program? Can you identify examples of EM&V frameworks that have been employed in other public loan programs?

- EM&V methods should follow the existing financial industry practice, measuring the success of the program by looking at the size and health of the loan portfolio. Important KPI's could include number of funded projects, application approval rates, average recipient credit scores, repayment rates, and default rates. Additionally, it is important to make this information public to encourage other early adopters.
- Beyond financial metrics, the framework could consider the footprint of MHDV deployments (also including number of MHD ZEVs deployed, miles travels, etc.), charging station metrics (number of chargers, usage, energy consumption, etc.), GHG emission reduction and air quality improvements, etc.

#### 7. Are there any other thoughts or recommendations that you would like us to consider?

- CEC should consider not just providing loans, but also potentially acting as loan guarantor for some of the borrowers, removing credit risk and expanding the pool of loan candidates.

- CEC could also provide short-term financing for “work-in-process inventory” of charging stations, funding installation companies from the time the equipment is delivered until they are fully commissioned and operational, preventing users from incurring financial costs before operations can start.
- Additional resources
  - CALSTART paper on financing ZEVs and ZEV infrastructure<sup>1</sup>.
  - EDF paper on financing ZEVs<sup>2</sup>.
  - Volvo Group paper on freight electrification<sup>3</sup>.

Volvo Group appreciates the CEC’s efforts on this front, and we stand ready to work with CEC staff to further develop the concepts proposed here, and to successfully implement the innovative loan program to support the electrification of the MHDV sector.

Kind regards,



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<sup>1</sup> <https://calstart.org/taking-commercial-fleet-electrification-to-scale-financing-barriers-and-solutions/>

<sup>2</sup> [https://business.edf.org/files/EDF023\\_Zero-Emissions\\_v3.pdf](https://business.edf.org/files/EDF023_Zero-Emissions_v3.pdf)

<sup>3</sup> <https://cdn.lightsproject.com/downloads/volvo-lights-wevj-redefining-goods-movement.pdf>