

**DOCKETED**

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*Comment Received From: Francesca Wahl*  
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**Tesla Comments Medium and Heavy Duty ZEV Infrastructure Concepts**

*Additional submitted attachment is included below.*



November 8, 2019

California Energy Commission  
Re: Docket No: 19-TRAN-02  
1516 Ninth Street  
Sacramento, CA 95814

**RE: Concepts for Medium- and Heavy-Duty Zero-Emission Vehicles and Infrastructure**

Dear Energy Commission staff:

Tesla appreciates the opportunity to provide feedback on the concepts for the medium- and heavy-duty (MD/HD) zero emission vehicle (ZEV) and infrastructure funding under the Clean Transportation Program discussed during the workshop on October 25, 2019.

In previous comments regarding the Clean Transportation Programs, Tesla expressed support for focusing on ZEVs and infrastructure and recommended close coordination with other states agencies and programs including the Air Resources Board (CARB) and the Public Utilities Commission (CPUC) to identify funding gaps and opportunities for leveraging various programs. Specifically, Tesla articulated the opportunity for focusing on infrastructure under the Clean Transportation Program's medium and heavy-duty funding options and not dismissing the need for infrastructure to support the growth of this sector as premature.

While there are other funding sources available for MD/HD charging infrastructure, including the funding approved by the CPUC for the investor owned utilities' (IOUs) programs, these sources alone will not satisfy the likely geographical diversity of the infrastructure needs across California. At the same time and as discussed in the Clean Transportation Program funding plan, heavy-duty EVs will have unique charging needs in terms of power level requirements and necessary timing for when to charge the vehicles compared to other sectors, including medium-duty fleets. Tesla, therefore, focuses its comments on the perspective of the potential charging needs for heavy-duty EVs and how the proposed solicitations can best help meet those needs.

**I. PROPOSED CONCEPTS**

- a. *Focusing on concepts 1, 2 and 3 – freight, transit and truck fleet, and infrastructure blueprints – as a general framework for projects funded under the solicitations in the near term is appropriate.*

For concepts 1 (freight) and 2 (transit and truck fleets) there was discussion during the workshop whether both concepts are necessary and if it is appropriate to focus on the charging equipment and make-ready infrastructure given existing IOU programs. Tesla supports developing solicitations for both concepts because concept 1 is focused on demonstrating specific freight sector use cases and charging applications, while concept 2 is scoped more broadly to incorporate a range of transit and truck fleets. While the IOU programs focus on make-ready infrastructure and some limited charging station rebates, they only cover certain geographic areas of the state. The CEC program can help facilitate projects outside the IOU territories or those that are not a good fit for the IOU programs. Energy Commission staff can closely coordinate with CPUC on any takeaways and lessons learned from the IOUs' programs as those are rolled out, which can then be incorporated in future solicitations.

For concept 1 (freight), it states that eligible applicants have to be “1) an original equipment manufacturer (OEM) **or** a technology integrator working with an OEM **and** 2) committed end-user fleet operator partners.”<sup>1</sup> Recognizing there may be some OEMs that also operate large fleets and plan to test those fleets, Tesla recommends expanding eligibility to include an OEM that participates on its own as the fleet operator. This could be accomplished by amending the following on the eligibility criteria: “1) an original equipment manufacturer (OEM) or a technology integrator working with an OEM and 2) committed end-user fleet operator partners or an OEM that is the committed end-use fleet operator.”

For concept 2 (transit and truck fleets), including grid integration strategies is useful in that it provides an opportunity for fleet operators to incorporate a suite of distributed energy resources including solar and storage. Rather than limiting what technologies can be considered under grid integration, it would be helpful for the solicitation to provide some level of flexibility to be able to evaluate an array of creative solutions, should there be technologies beyond storage and charging management that can help achieve this goal. Looking forward, grid integration could also be relevant from a resilience perspective, which will play an increasing role as the transportation sector electrifies across multiple vehicle types.

For concept 3 (infrastructure blueprints), it appears that this effort is similar to the Energy Commission’s previous efforts to fund EV-ready community blueprints, primarily focused on light-duty vehicles. Tesla supports opening a solicitation to garner interest in transition to MD/HD ZEVs across various communities that may otherwise not be able to pursue such opportunities, or where reducing pollution can have the most significant impact. Similar to the previous EV-ready community efforts, it could be helpful to structure this as a two part competitive solicitation where entities can apply for implementation funding for the plan once developed in order to ensure proposed actions are actually implemented.

For concept 5 (long haul and innovative applications), its inclusion is warranted, however, if the Energy Commission is considering releasing the solicitations in a particular order, we suggest reserving this concept for future funding years and prioritizing the other three concepts referenced above in the near term. Otherwise, if the Energy Commission would like to retain a small funding pool for innovative applications that provides flexibility, we suggest separating this idea from the long haul application and providing a future, separate solicitation that solely focuses on long haul applications.

Finally, while Tesla supports focusing on infrastructure in the near term under the proposed concepts to complement CARB’s vehicle funding programs, depending on the funding amounts that are allocated via CARB’s programs, if there is a short fall for MD/HD vehicles, the Energy Commission may want to consider incorporating funding for combined vehicle and infrastructure systems. For instance, in developing the Beneficiary Mitigation Plan for Appendix D, CARB staff recommended incorporating “infrastructure funding into the per-vehicle funding provides each fleet the flexibility to use the additional, incorporated funds to meet their individual fleet’s infrastructure needs, while also allowing for a streamlined funding process.”<sup>2</sup> A similar approach could be taken under these solicitations if it is determined that existing vehicle funding is insufficient to spur MD/HD ZEV adoption at the level needed to meet California’s climate goals.

## II. SOLICITATION STRUCTURE

- a. *For concepts 1(freight) and 2 (transit and truck fleets) recommend providing funds using a first come, first served structure.*

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<sup>1</sup> Staff draft concept pages, October 14, 2019, p.1.

<sup>2</sup> CARB VW Beneficiary Mitigation Plan, p.16. Available at: [https://ww2.arb.ca.gov/sites/default/files/2018-07/bmp\\_june2018.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-07/bmp_june2018.pdf)

While there is value in utilizing competitive solicitations for some of the proposed concepts, such as concept 3 (blueprints) and 5 (long haul and innovative applications), Tesla recommends a first-come, first-served model for concepts 1 (freight) and 2 (transit and truck fleets) and establishing minimum requirements that must be achieved to be eligible for funding. Given that there is approximately \$47 million available in funding from FY18-19 and FY19-20 allocations, the Energy Commission could also choose to release funding in installments for each solicitation establishing a phase 1 and 2 timeline and evaluating uptake within each phase to help determine the amount of funding that may be necessary going forward to meet project needs.

- b. For concept 2 on truck fleets, eligibility criteria should include a minimum commitment to procure at least two trucks.*

Given that concept 2 is intended to focus primarily on fleets, Tesla recommends including a commitment to procure at least two trucks for an entity to be eligible for funding. This two truck minimum aligns with the IOUs' MD/HD programs and could be increased in the future as larger fleet commitments move forward. Given the relatively long planning timeline associated with many potential MD/HD infrastructure projects, it should be sufficient for the entity procuring the truck fleet to demonstrate a commitment to doing so rather than requiring a purchase order. Planning for infrastructure projects will likely need to be done well in advance of the customers taking delivery of the trucks. Setting a requirement to procure the trucks prior to being eligible for any infrastructure funding would likely limit uptake and participation in the project. Therefore, applicants should be able to move forward by demonstrating a commitment to procuring at least two trucks for a particular project.

- c. Further input should be provided by utilities regarding the feasibility of the preliminary capacity check.*

For several of the concepts, Energy Commission staff references the need for a preliminary capacity check for a particular site to potentially be eligible for applying for funding. While this requirement may be reasonable and necessary, it is difficult to evaluate its benefit/cost without additional input from the utilities on the feasibility, timeline, cost, etc. of providing such an assessment in advance. This requirement may dissuade certain smaller fleet operators from applying for program funding depending on the requirements necessary to obtain a preliminary capacity check. Tesla encourages Energy Commission staff to seek additional feedback from utilities regarding this item to best evaluate whether this will be feasible for each potential application for MD/HD infrastructure funds.

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Tesla appreciates the opportunity to provide feedback on the initial concepts for MD/HD ZEVs and infrastructure and looks forward to continuing to work with staff and other stakeholders to refine the concepts prior to the issuance of future project solicitations.

Sincerely,

Francesca Wahl  
Senior Policy Advisor, Business Development and Policy