

DOCKETED

Docket Number:	19-ALT-01
Project Title:	2020-2021 Investment Plan Update for the Clean Transportation Program
TN #:	232613
Document Title:	Francesca Wahl Comments - Tesla Comments FY 20-23 Investment Plan
Description:	N/A
Filer:	System
Organization:	Francesca Wahl
Submitter Role:	Public
Submission Date:	3/31/2020 12:18:01 PM
Docketed Date:	4/1/2020

*Comment Received From: Francesca Wahl
Submitted On: 3/31/2020
Docket Number: 19-ALT-01*

Tesla Comments FY 20-23 Investment Plan

Attached are Tesla's comments on the draft staff report for the FY 20-23 Investment Plan Update for Clean Transportation Program

Additional submitted attachment is included below.



March 30, 2020

California Energy Commission
Re: Docket No: 19-ALT-01
1516 Ninth Street
Sacramento, CA 95814

RE: Draft Staff Report - 2020-2023 Investment Plan Update for the Clean Transportation Program

Dear Commissioner Monahan and Energy Commission Staff:

Tesla appreciates the opportunity to provide feedback on the draft staff report for the Fiscal Year (FY) 2020-2023 Investment Plan Update for the Clean Transportation Program. The Investment Plan Update includes a near term focus on light-duty zero emission vehicle (ZEV) infrastructure and a longer-term investment strategy for addressing medium- and heavy-duty infrastructure needs.

Tesla's comments below focus on the ZEV infrastructure priorities outlined in the Investment Plan including medium- and heavy-duty infrastructure investment focus areas and direct current fast charging (DCFC) in the context of the charging infrastructure gap.

In general, Tesla supports the focus on light-duty ZEV infrastructure in the near-term but also recognizes the near-term investment need for medium- and heavy-duty ZEV infrastructure. Furthermore, Tesla continues to support coordination with other states agencies and programs including the Air Resources Board (CARB) and the Public Utilities Commission (CPUC) to identify more specific funding gaps for the various applications of light-, medium- and heavy-duty ZEVs and charging infrastructure.

I. Allocating increasing amounts of funding for medium and heavy-duty ZEV infrastructure is necessary to drive adoption.

Tesla is pleased to see an increased focus over the three-year Investment Plan Update on medium- and heavy-duty ZEV infrastructure. In order to ensure the transition to zero emission vehicles in this sector and meet the state's air quality goals, however, charging infrastructure access will have to grow rapidly in the near term. While there are other funding sources available today for medium- and heavy-duty infrastructure, including the funding approved by the CPUC for the investor owned utilities' programs of which \$600 million in approved funding currently remains,¹ this funding alone will not meet the geographical diversity of the infrastructure needs across the entire state. Staff highlights this gap in the plan noting that "looking beyond the timeframe in which CEC staff will implement the five previously proposed concepts, the CEC expects the need for medium- and heavy-duty ZEV infrastructure to ramp up drastically."²

Given that the CEC is simultaneously developing a Charging Infrastructure Assessment for medium- and heavy-duty ZEVs, Tesla recommends maintaining flexibility in the specific funding amounts in future years if it becomes apparent that existing programs and funding, both at the CEC and outside the CEC, will not be able to meet the gap.

¹ CPUC Staff Draft Transportation Electrification Framework: Workshop 1, March 23, 2020, Slide 8.

² Investment Plan Update, March 2, 2020, p.45.

a. Solicitation concepts for prioritizing infrastructure investment

In November 2019, Tesla provided feedback regarding the five proposed concepts for medium- and heavy-duty ZEV and infrastructure investment that are referenced in the Investment Plan Update. The Investment Plan also notes that “these concepts could draw upon nearly \$47.5 million available from prior investment plans.”³ Tesla continues to support the feedback outlined in the previous comments on the concepts including that if it is determined that existing vehicle funding is insufficient to spur medium- and heavy-duty ZEV adoption at the level needed to meet California’s climate goals, infrastructure funding could be combined with a per vehicle incentive funding.⁴

b. Guidelines for medium- and heavy-duty vehicle charging infrastructure investment

The Investment Plan also notes that “CEC staff is developing a set of guidelines specific to medium- and heavy-duty vehicles and expects that a portion of the funding from this allocation may be used to support the installment of charging infrastructure specifically for medium- and heavy-duty PEVs.”⁵ Tesla is supportive of the development of guidelines for investment strategies and looks forward to providing feedback to staff on the specific proposals. Given the nascent stage of the heavy-duty EV sector, Tesla would recommend that any guidelines are not overly prescriptive which could limit innovation and growth potential but should rather maintain flexibility.

c. Charging Infrastructure Assessment

Additionally, the Investment Plan references the CEC’s forthcoming Infrastructure Assessment, future iterations of which will also include opportunities to identify the infrastructure gap for medium- and heavy-duty EVs.⁶ Identifying this infrastructure gap will be important, but at the same time, it is also important to ensure heavy-duty power needs are accurately forecast. Tesla provided comments on the preliminary Transportation Demand Forecast highlighting that failure to adequately forecast market adoption is especially problematic for heavy-duty trucks, given that they will charge at high power levels and may require construction of new generation, and transmission capacity or substations in certain locations at even modest adoption levels.⁷ Tesla appreciates staff’s revised forecast in the Final 2019 Integrated Energy Policy Report (IEPR), which for Class 8 trucks includes that “battery-electric achieves 34 percent share in 2030 in the high-demand case and 30 percent in the mid-demand case.”⁸ This forecast should continue to be refined as additional data becomes available.

d. Distributed Energy Resources Integration

Finally, both in the context of light- and heavy-duty vehicles, enabling opportunities for deploying storage solutions, and other distributed energy resources, with charging infrastructure is important. The Investment Plan points out that “in addition to vehicle and infrastructure investments, the CEC will seek ways to include grid integration, integrated storage solutions, and charging management as complementary technologies.”⁹ As Tesla has previously stated, looking forward, grid integration could

³ Investment Plan Update, March 2, 2020, p.42.

⁴ Tesla Comments to CEC, November 5, 2019.

⁵ Investment Plan Update, March 2, 2020, p.43.

⁶ Investment Plan Update, March 2, 2020, p.7.

⁷ Tesla Comments, Transportation Demand Forecast, August 5, 2019.

⁸ Final 2019 Integrated Energy Policy Report, January 2020, p.237.

⁹ Investment Plan Update, March 2, 2020, p.45.

also be relevant from a resilience perspective, which will play an increasing role as the transportation sector electrifies across multiple vehicle types. Tesla is therefore supportive of evaluation of other distributed energy resources in combination with charging infrastructure, both for light- and heavy-duty vehicles.

II. Addressing the significant gap in light-duty ZEV infrastructure as a near-term funding priority is important and any targets should recognize additional DCFCs currently deployed via private networks.

The Investment Plan Update allocates \$92.7 million for light duty ZEV infrastructure in FY 20-21 and over \$130 million total in funding over the next 2.5 years. Tesla supports continuing to focus a significant portion of the near-term funding allocation on light-duty ZEV infrastructure and funding regional deployment efforts under CALeVIP, which could leverage additional funding from project partners. For FY 22-23, the Investment Plan allocates \$10 million for light-duty infrastructure. Similar to the funding for medium- and heavy-duty ZEV infrastructure, the Investment Plan should balance providing certainty while at the same time maintaining flexibility to re-allocate funding as needed should additional needs arise. Close coordination with the progress toward closing the infrastructure gap as further identified by the Charging Infrastructure Assessment and monitoring funding for light-duty infrastructure via other statewide and local programs will be important to determine whether \$10 million or some other amount of lesser funding is appropriate in further out years.

a. DCFC Infrastructure Gap

Throughout the plan there is discussion of the current infrastructure gap that funding is intended to help address, and analysis is included that says that the currently identified investments still leave a gap of nearly 80,000 Level 2 charging connectors, and 3,600 DC fast charging connectors, by 2025. Based on table ES-2 provided in the Investment Plan as of December 1, 2019, there are currently approximately 2,900 DCFC connectors available in California. While it is unclear from the information provided in the chart, it appears that the DCFC connector count may not include Tesla's Supercharger network.

The Supercharger Network today is only available to Tesla drivers, however, Tesla vehicles represent a significant portion of the EVs on the road in California today and count toward the State's target of 1.5 million ZEVs by 2025. As of March 2020, Tesla has deployed 147 DCFC stations with 2,100 total DCFC connectors across California. This is a significant amount of DCFC connectors that serve Tesla EV driver needs and if not already included in the 2,900 DCFC connector count, should be reflected in the gap analysis, or this calculation should be further clarified in the Investment Plan Update.

Tesla appreciates the opportunity to express support for the current focus on ZEV infrastructure in the FY 20-23 Investment Plan for Clean Transportation Programs. Investment in ZEV infrastructure and ZEVs for all vehicle sectors continues to be important to help meet California's climate and air quality goals.

Sincerely,

Francesca Wahl
Charging Policy Manager, Business Development and Policy