

**DOCKETED**

<b>Docket Number:</b>	21-TRAN-03
<b>Project Title:</b>	Zero Emission Vehicle Infrastructure Barriers and Opportunities
<b>TN #:</b>	243064
<b>Document Title:</b>	Tesla Comments on Draft ZIP
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Tesla
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	5/13/2022 1:09:33 PM
<b>Docketed Date:</b>	5/13/2022

*Comment Received From: Francesca Wahl  
Submitted On: 5/13/2022  
Docket Number: 21-TRAN-03*

**Tesla Comments on Draft ZIP**

*Additional submitted attachment is included below.*

May 13, 2022

California Energy Commission  
21-TRAN-03  
1516 Ninth Street  
Sacramento, CA 95814

**RE: Staff Report – Draft California Zero-Emission Vehicle Infrastructure Plan**

Dear Energy Commission Staff:

Tesla appreciates the opportunity to provide feedback on the Draft California Zero-Emission Vehicle (ZEV) Infrastructure Plan (ZIP) that the California Energy Commission (CEC) Staff presented during the April 14, 2022 workshop. The ZIP is a follow on to the CA ZEV market development strategy which included infrastructure among the four key market pillars.

Overall, the ZIP includes many of the key elements that need to be addressed in order to meet California's EV and charging infrastructure goals. We concur with the importance of focusing on both home and destination charging as well as incorporating charging infrastructure in the most cost-effective manner such as via building codes at both the state and local level. Recognition that technology is still evolving for MDHD charging infrastructure, including necessary standardization<sup>1</sup> and the necessary phase out of CHAdeMO for LD fast charging<sup>2</sup> in future funding programs in the ZIP, is important.

Chapter 3, at a high level, captures many of the needs and challenges for infrastructure deployment today. Addressing these needs and challenges, however, is not directly discussed in Chapter 5, under the Infrastructure Deployment Plan near term and long-term actions and decisions. Therefore, Tesla focuses its comments on areas of the ZIP that should be more clearly incorporated in the near term and long-term actions. These include:

- Private Sector Investment
- Evaluating grid planning needs
- Streamlined permitting and accelerating interconnection timelines

**I. Private Sector Investment**

There is recognition in the ZIP that both public and private investment in charging infrastructure is necessary in order to meet the state's policy goals. Tesla has developed an extensive network of direct current fast charging (DCFC), known as the Supercharger Network, in California which includes nearly 300 sites with over 4,600 Superchargers. Additionally, Tesla has worked with site hosts across the state to deploy the Destination Charging Network which is provided as free amenity by local site hosts and offers Level 2 charging access. There are currently 845 destination charging sites with over 2400 destination chargers in California.

Tesla has made this investment in California given its vehicles currently represent approximately 70% of the EVs on the road in the state. Going forward, it continues to be necessary to have both private and public investment in charging infrastructure. Funding programs can leverage private investment by focusing on designing programs that are based on competitive solicitations, require some level of cost share component (in many instances), and help address some of the other barriers that impede rapid

---

<sup>1</sup> Draft ZIP, p. 24.

<sup>2</sup> Draft ZIP, p.41.

scalability of EV charging infrastructure such as permitting, interconnection, and establishing long-term utility tariff options for EVs.

## **II. Grid Planning Needs**

The ZIP in Chapter 2 notes that “with planning, foresight, and investments, the grid will be prepared for this new load.”<sup>3</sup> Furthermore, it indicates that “while there are no fundamental obstacles to increased PEV adoption due to existing planning processes, there is work to be done, and the state’s planners are working to ensure the grid will be capable of supporting increased transportation electrification.”<sup>4</sup> Finally, ZIP highlights that the distribution system is more likely to see challenges.

Tesla agrees that focusing on sufficient distribution infrastructure build out to support EV needs is important. For instance, there appears to be limited direct focus in planning efforts today on evaluating infrastructure needs and build-out for DCFC across the state beyond high-level planning. As site level power requirements continue to increase with larger station sizes and station designs continue to evolve, it will be increasingly important to evaluate capacity timelines associated with the build out of DCFC across the state. For instance, if a substation upgrade is necessary in a particular area, it will be important to understand the timelines associated with those upgrades and whether or not the utilities can proactively invest in expected future areas of need. Tesla is already starting to identify some site development constraints for projects that are being quoted lead times of more than two years for necessary upgrades to serve the new load. Superchargers and other DCFC stations deployed today in CA are often critical to meeting not only future demand growth, but also the existing EV fleet’s demand, especially on peak travel corridors and during peak travel days. Waiting more than two years to begin the process to develop a site is challenging and often not feasible to keep up with customer charging demand. It will be important to continue to place greater emphasis on the grid capacity needs and investments necessary to support future build out of much larger DCFC sites. Similar to the discussion on grid planning for the MDHD market segment as discussed in Chapter 5 for state actions, Tesla recommends highlighting grid planning for capacity needs as a near-term action for the fast charging for light-duty PEVs market segment.

## **III. Streamlined Permitting and Accelerating Interconnection Timelines**

Many of the CA stakeholder discussions regarding EV charging deployment revolve around speed and scalability to help meet current and future EV driver needs. Two of the biggest challenges to accelerating charging infrastructure deployment timelines for both public and private investments include permitting and interconnection (via a new service request). Streamlining EV charger permitting is critically important for ensuring the infrastructure development needed to support significant EV deployment is provided in a timely manner and keeps pace with driver needs. Engaging with utility partners is also critical to accelerate new service connection processes so that charging stations are built and energized quickly in order to keep pace with the growth of EV sales. Progress has been made on both items, but additional work remains. While Chapter 5 focuses on each of the five market segments<sup>5</sup> and outlines state actions and plans for each category, it is important to specifically reference streamlined permitting and accelerating interconnection timelines under the state actions. Tesla recommends either adding a sixth segment on “permitting and interconnection acceleration” or incorporating reference to permitting and

---

<sup>3</sup> Draft ZIP, p. 14.

<sup>4</sup> Draft ZIP, p. 15.

<sup>5</sup> Charging and Hydrogen Fueling for MDHD ZEVs, Public Hydrogen Fueling for Light-Duty FCEVs, Level 1 and Level 2 Charging for Light-Duty PEVs, Fast Charging for Light-Duty PEVs, Emerging Technologies

interconnection for each of the market segments similar to the reference to grid planning in certain market segment actions.

#### A. Streamlined Permitting

The permitting guidebook, online permitting map and other resources provided by GOBiz as well as the state laws highlighted in the ZIP have driven direct progress for streamlined permitting and created more standardization across regions in CA. The benefits of a streamlined permitting process not only help get charging infrastructure in the ground faster, but also helps set expectations, creates transparency with the authority having jurisdiction (AHJ), and keeps developers like Tesla accountable to local government colleagues. The biggest challenges to having a streamlined process continue to be the length and uncertainty of timelines (2 months or 1 year and 2 months). Two other areas include planning and zoning conflicts including aesthetic concerns and application of parking count minimums. While the legislation mentioned in the ZIP, requires AHJs to adhere to specified timelines, constrain review to health and safety matters, limit comments to a single round, and to bypass zoning, compliance with these laws has been mixed in practice.

#### B. Improving Interconnection Timelines

As referenced in the ZIP, the investor-owned utilities (IOUs) are currently in the process of working toward improving the interconnection timelines for new service requests for EV charging. For instance, the IOUs hosted a workshop in March that focused on process improvements. In response to the workshop, Tesla filed informal comments with EVgo and ChargePoint articulating some of the key challenges and opportunities for improving the timelines. The recommendations for best practices included streamlining easements, adopting average energization timeline of 90 days, evaluating additional staffing needs, improving distribution system capacity maps, and assessing dependencies such as contractors and additional permitting requirements. GOBiz has also facilitated some stakeholder discussions in this area and will be providing some updated recommendations as part of the permitting guidebook update. The ZIP should continue to recognize this as an important area of focus for the scalability of both public and private sector charging infrastructure investment across CA and evaluate whether these best practices can be applied across all utilities in CA.

\*\*\*

Tesla appreciates the opportunity to provide feedback on the draft ZIP as it provides a vision for current and future EV charging infrastructure investment in CA. Overall, it will be important to translate the needs and challenges discussed in Chapter 3 for infrastructure deployment into near- and long-term actions for the infrastructure deployment plan outlined in Chapter 5.

Sincerely,

Francesca Wahl  
Senior Charging Policy Manager  
Business Development and Public Policy