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EVgo Clean Transportation Program Comments

Additional submitted attachment is included below.

July 6, 2020

California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

RE: Docket Number 19-ALT-01 - 2020-2023 Investment Plan Update for the Clean Transportation Program

Commissioner Monahan,

EVgo commends the California Energy Commission (Energy Commission) for its leadership in helping the state meet its climate and zero emission vehicle (ZEV) goals and appreciates the Energy Commission's partnership as EVgo continues to develop a robust public fast charging network across California.

Headquartered in California, EVgo owns and operates direct current fast chargers (DCFC) at over 800 locations across the United States. In California, where more than half of the EVs in the U.S. are currently located, EVgo's network of fast chargers grew by 40 percent in 2019¹. EVgo manages more than 300 fast charging locations and 750 fast chargers across the state, connecting more than 80% of Californians to an EVgo fast charger within a 15-minute drive. In 2019, EVgo also became the first North American charging market to be powered by 100% renewable energy.

EVgo reiterates its support for the Investment Plan and its near-term emphasis on light duty infrastructure. However, EVgo was concerned to see an abrupt cliff for light duty funding in 2023. As Energy Commission staff notes in its Plan, a projected 3,600 charger gap will still exist for DCFC in 2025, even when all program funding across the state is taken into account². Despite the great strides EVgo and other networks have made in partnership with the Energy Commission, EV charging infrastructure remains in the early stage of a technology curve that requires continued support.³ To scale charging infrastructure, upgrade it to higher speeds, and operate it safely and reliably ahead of widespread EV adoption, public funding partnerships will continue to be needed as a bridge before we see truly widespread adoption of EVs necessary to meet 2030 state goals.

Fast charging infrastructure in particular is critical to reaching the state's increasing population of EV drivers and is especially crucial to enable electrification for drivers without reliable access to charging at home or in the workplace, residents of multi-unit dwellings who rely on public charging for the majority of their charging needs, drivers utilizing key transit corridors, as well as light duty vehicle (LDV) fleets, including car sharing and ride sharing applications. While rapidly growing, this market, especially for DCFC, is still nascent.

EVgo agrees with the Energy Commission that California must continue to accelerate deployment of charging infrastructure, especially as more affordable EVs become able to take advantage of increasing

¹ <https://www.evgo.com/about/news/evgo-announces-40-percent-growth-in-its-california-fast-charging-network/>

² California Energy Commission, 2020-2023 Investment Plan Update for the Clean Transportation Program (June 16, 2020), p. 43.

³For more information on the cost stack for DCFC, please see: https://www.evgo.com/wp-content/uploads/2020/05/2020.05.18_EVgo-Whitepaper_DCFC-cost-and-policy.pdf

charging speeds arrive in the market over the coming years. Below, EVgo has articulated why sustained funding in the light duty infrastructure space is needed, especially in DCFC.

1. California Energy Commission programs have been critical for driving forward investments in the DCFC space, and sustained light duty investments are needed, especially for fast chargers.

Through CALeVIP, the California Energy Commission has taken a leadership role in infrastructure investments throughout the state of California. Launched fewer than two years ago, has been the first nearly statewide program for DCFC, as the Energy Commission rotates regions throughout the state through several solicitation windows per year, encouraging wide distribution of chargers across geographies. In contrast, while nearly \$1 billion in spending has been authorized by the California Public Utilities Commission (CPUC), most of those programs have gone to the Level 2 and medium-heavy duty sectors. To date, Pacific Gas & Electric (PG&E) has been the only investor owned utility to launch a dedicated fast charging program, with approximately \$22MM in make-ready. EVgo commends PG&E for seeing the value in increasing fast charging to improve access to EVs for its customers, but this is only one program covers one service territory and is a smaller scale than investments needed to meet ZEV goals.

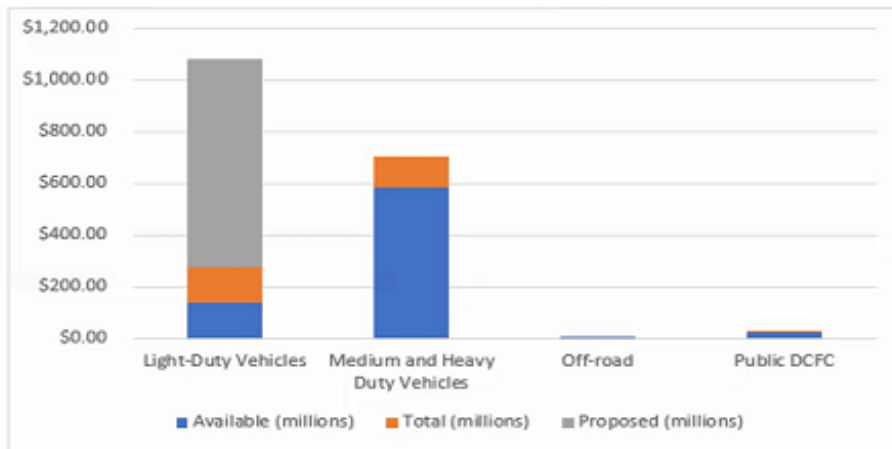


Figure 1 The California Public Utilities Commission shows about \$1 billion in funding approved or proposed in the light duty sector, mostly comprising of workplaces and multi-unit dwelling charging. About \$700 million has been approved for MHD.⁴

Therefore, utility programs, while helpful, are no substitute for direct partnership between the state funding agencies and private network operators, especially in the DCFC space. The Energy Commission’s role in the fast charging space has been critical, and long-term, sustained investments from CEC through programs like CALeVIP will still be needed to continue progress at the scale needed to achieve statewide EV adoption goals.

2. Long-term investments are needed in light duty charging infrastructure to support new EV models that will come to market in the coming years.

Automakers have announced that approximately 100 models of EVs will be available by 2023, with that number increasing to 140 unique models by 2025. This will include more all-wheel drive and crossover vehicles which will increase options for consumers. EV fast charging infrastructure is a long-term investment, and private networks make decisions to invest on 5-10 year horizons, even before these vehicles hit the market. EVgo and others have been building ahead of the market and can only continue

⁴<https://www.cpuc.ca.gov/zev/>

to do so with support from key partners like the Energy Commission. With only 700,110 EV sales to date⁵, California is still far behind its goal of 5 million ZEVs by 2030. Scaling down and ultimately phasing out funding in the last year of the Clean Transportation Program will increasingly make charging infrastructure the limiting factor to increasing electrical vehicle adoption.

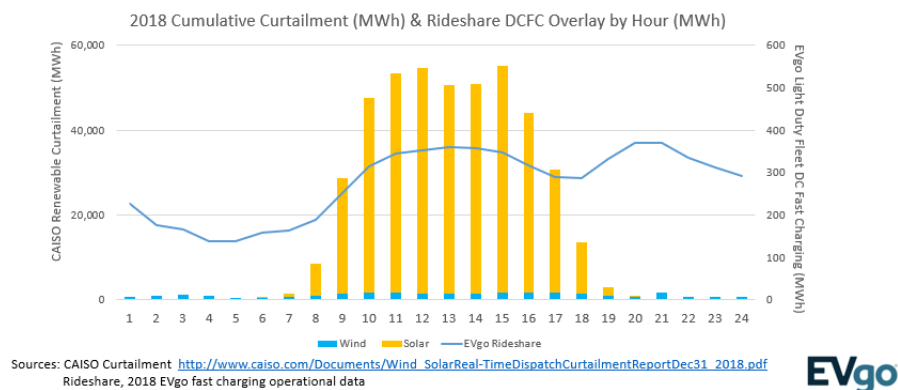
3. Implementation of the Clean Miles Standard is set to begin in 2023 and will necessitate additional fast charging as light duty fleet electrification grows.

The timely implementation of SB 1014, the Clean Miles Standard, will necessitate widespread deployments of DCFC. High mileage vehicles, such as those driven for rideshare and delivery, present an opportunity to accelerate an electrified transportation ecosystem that provides environmental and economic benefits alike.

SB 1014, authored by California State Senator Nancy Skinner, was signed by Governor Brown in September 2018 and encourages fleet electrification for transportation networking companies (TNCs). Commensurate fast charging capacity will be required to enable this transformation for this important high mileage sector. Per the latest Clean Miles Standard workshop hosted by the California Air Resources Board (CARB), implementation of the Standard is set to begin in 2023, the same year that CEC plans to phase out light duty charging investments. Insufficient fast charging availability, especially in metropolitan markets, will lead to a shortage of infrastructure to meet these goals while also potentially crowding existing stations for both the public and rideshare drivers alike. Sustained Energy Commission investments in the DCFC space will enable charging networks to build on lessons learned from privately owned and LDV fleet electric vehicles and continue to support the expanded capacity needed to induce electrification at scale.

4. Fast charging provides grid benefits and helps to reduce solar curtailment.

Operational data from EVgo’s network demonstrates that fast charging demonstrates elevated midday demand for fast charging, mitigating solar curtailment. This is apparent both in terms of rideshare and fleet charging, as seen below, but also the EVgo public network, where approximately 45% of personal use charging takes place between 9AM-3PM solar hours and 75% takes place between 9am and 6pm. This occurs naturally without price signals, as fast charging naturally takes place during the day when EV drivers are running personal errands, such as grocery shopping. As such, DCFC offers one of the better use cases for renewables integration, especially solar.



⁵Veloz Q4 2019 Data Update (February 24, 2020). Available at <https://www.veloz.org/sales-dashboard/>

Conclusion

EVgo thanks the Energy Commission for its leadership role in accelerating charging infrastructure investments throughout California and its commitment to light duty infrastructure in the Investment Plan. Given the complex cost stack and ongoing technology developments, it is premature to discuss phasing down incentives for light duty EVSE, especially DCFC, when California is still in the early stages of ZEV penetration.

Private sector innovation accompanied by public sector investment will significantly accelerate market maturation. If state agencies like the Energy Commission can help mitigate the cost of equipment in advance of widespread EV adoption, the private sector will continue to develop and deploy advanced technologies. EVgo looks forward to working in collaboration with the Energy Commission to usher in a new era of ZEV adoption in California.

Sincerely,



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