

DOCKETED

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MHD fleets require funding support as more barriers exist in commercial EV deployment than LD vehicles

Additional submitted attachment is included below.



May 21, 2018

Ms. Jennifer Allen
California Energy Commission
Fuels & Transportation Division
1516 9th Street
Sacramento, CA 95814

Re: Staff Workshop on Governor's Executive Order B-48-18

Title:

MHD fleets require funding support as more barriers exist in commercial EV deployment than LD vehicles

Organization Name: San Diego Airport Parking Company

Dear Ms. Allen,

San Diego Airport Parking Company (SDAP) on behalf of small and private fleets operators, would like to thank CEC and the Fuels & Transportation Division staff for the opportunity to make comments to help further support the deployment of zero emission vehicles which also includes many commercial fleets that are both small and or private that will require funding support the same as Light Duty EV equipment and infrastructure; however, the funding support for commercial fleets still has faced limited opportunities and even more barriers with no standards. It is for these reasons that SDAP seeks for the funding to be increased to support MHD fleets.

The following comments are offered in support of the MHD fleets on the Executive Order and whereby the comments provide additional support for how the funds through the Advanced and Renewable Fuel and Vehicle Technology Program (ARFVTP) should be increased and should include a demonstration or pilot project for private airport fleets:

1) **MHD Fuel Volume**

CARB EMFAC reports provide the details that determine that regardless of the LD population of vehicles, the volume of fuel by MHD fleets is more and thereby supporting funding to help deploy more commercial ZEV vehicles and EVSE requires more broader support as the facts depict that there is currently a greater need and greater barriers that when supported could immediately produce greater results for air quality when fleet charging is supported.

2) **Amendment due to CARB's LCFS Regulation and Cost Impact**

A 11% decline by 2030 in LD fuel use has been updated by Carb to meet CEC's demand forecast. There is a 2% increase forecasted in diesel. The potential cost impact on fleets is 18-36 cents per gallon by 2030 for every 100,000 fleet miles traveled. If the average is 10 mpg, this cost impact is \$2,500 annually for every 100,000 VMT. LD cost impact will be approximately \$100 annually. The cost impact on fleets require support immediately as this has been significantly lacking.

3) **Reward for Renewables supports real Zero Emission Charging**

Carb's LCFS Amended Regulation proposes to reward the GHG benefits of shifting to renewable electricity that might otherwise be wasted. This is an opportunity to understand that commercial fleet and fuel use should require installment of renewables to further support the program as fleets will incur other construction challenges that could instead be supported by renewables and the additional cost could be mitigated, this will help the IOU's meet the renewables target, curtail the energy from sunshine and capture it in battery storage that could support fleets charging both off the grid and faster without the requirement to use the grid or requirements for additional improvements. These innovations are currently available however, they are not being supported to help with deployment by fleets as the benefits for renewables will also support providing an emergency hub.

4) **ZEV Measures to Require procurement of ZEV fleets**

Commercial fleets that include Airports shuttles, Transit and Freight delivery are all being required to procure ZEV vehicles and thereby these fleets require programs and projects that will enable commercially available charging infrastructure.

Fleets and applicants that fall under this measure require more of a need for funding to help facilitate fast DCFC EVSE. There is no easy alternative for fleets especially private and small fleets that face limited funding capital and at many times will not have enough electricity available on their property, have shared transformers, or transformers could be across a city owned street, making installation for the equipment not an easy deployment process and thereby the entire project to install EV charging infrastructure is too much of an upfront expense that is beyond the fleet operators budget for capital.

5) **Airport Shuttles that fall under mainly the medium-duty fleet vehicles and commercial fast DCFC EV charging infrastructure that is operating 24/7 in urban areas and have predictable short haul routes that are fixed. This sector has been provided no funding opportunities and a pilot program is required for this sector to support private and small business such as Off-Site Airport Parking, Hotel, Off-site Rental Car and Door to Door Shuttles. The MD passenger bus sector requires a portion of ARFVTP's funds to support deployment of a pilot project as this sector and class of vehicle has been provided no pilot projects.**

Airport Shuttles are made of private fleets that produce high vehicle miles traveled and that share their roadways and routes with other MHD fleets and light duty passenger cars.

The customers will park their LD car in these parking lots for on average of 3-5 days at the Off-Site Airport Parking business such as SDAP. Off-Site Airport Shuttle operators procure passenger size buses, on average, from a Class 2B through Class 4, and typically the “on” airport operators may have up to a Class 7. The standards and the vehicle equipment inventory, the connectors, the volts and amps, inductive versus wired, renewables vs grid charging, AC versus DC, demand fees vs high volume electricity use --- the Medium- and heavy-duty EVs is currently a wild west, even though the HVIP program has been around since 2009; as such, we should have a plan towards charging infrastructure with international standards that will create the accelerated sales and confidence for the fleet customer, the same as what the standards have done for the light-duty EV vehicle sector. The Medium- and heavy-duty EV charging infrastructure has many unique challenges with many options that create more risk and more barriers to adoption for fleet operators. Thereby this requires further research and development that fast charging with renewables and emergency hubs that could be deployed for airport shuttles and could immediately provide data and demonstrate benefits; however, the more advanced and innovative charging solutions with high vehicle miles traveled fleet operations have not been done with the MD vehicles that do not require the expensive overhead charging and very very fast kW power. Private Airport shuttle fleets can operate with standard DCFC between 50 and 150 kW power due to their short and fixed routes. Because of this, we recommend that the CEC support funding the Airport MD shuttles as these operations in many circumstances park multiple vehicles on their property at the same time and the business is a private or small commercial business. Airport operations such as those like SDAP have hundreds to thousands of customer cars parked on their property at the same time leading to supporting multiple EV users.

Multiple types of medium- and heavy-duty charging infrastructure will support both MD and LD various vehicle types. This could foster innovation to install renewables, reduce installation cost, reduce demand fees, create incentive kWh pricing and look to the future as the MD EV sector has been fragmented in this technology. A project for MD Airport Shuttles is recommended to support Battery Capacity design with payload for MD vehicles with Fast Charging at just the correct power level and capacity to create the efficiency of over 1.5 miles per kilowatt hour and that are supported by EVSE standards. This will result in data that proves to be a benefit in the technology when capacity and power level are designed just for short haul and include the use of renewables to mitigate other cost impacts both short term and long term.

g) **Funding: HVIP Results and Carl Moyer in San Diego**

When looking back as to the achievements in procurement, the HVIP has 365 extinct MD vehicles out of the 550. HVIP has resulted in 550 vehicle voucher rebates as of 2-1-18 and since 2009 have had about 365 vehicles extinct leaving less than 200 EV commercial vehicles procured since 2009 that are on the roadways today. These results over the last nine years require more data today to accelerate adoption in the future and more standards as we cannot be repeating the last nine years in commercial EV. Reliability and durability create the performance and the confidence that fleets require when traveling thousands and millions of miles over the roadways safely and need to comprehend the useful life period that should match other technologies. EV performance and useful life is compared to the standards and reliability of diesel that continues to be lengthened and improved with the technology and equipment to meet the CAFÉ standards.

Carl Moyer in Southern California and specifically in San Diego offers no funding opportunities for MD vehicles or EVSE. San Diego continues to not share in the numerous funding opportunities that exist in the SCE and PGE territories and or the Air Districts, for these reasons, San Diego and Southern California deserve more funding programs.

7) **Effects on Private fleets and Small business Transportation, Diversity for EV commercial funding is required.**

Transportation fleets are mainly made up of small business and private business. In San Diego 87% of all commercial accounts are small business plans with SDG&E. Commercial EV Transportation will require mainly fast DCFC charging stations located closer to urban workplaces or corridors and highways and are required for successful fleet deployment; however, due to the unique connector challenges and lack of standards in commercial equipment inventory --- many of today's commercial EVSE access may not support the vehicle and the EVSE charging equipment could be short lived at this point (stranded assets), could change tomorrow resulting in a very risky business decision. When you compare the facts that DCFC access is only 500 DCFC's and 107 for private fleets- the commercial MHD has still significant room for growth especially when compared to LD. Outdated technology or an OEM out of business or not supplying parts and services in conveniently located stations undermines the confidence of keeping the vehicles on the road daily to support the business. All the equipment in commercial is 100% proprietary with no regulations for penalties or enforcement due to zero emission tail pipe—as such, this is risky for any business and even more so for small and private fleets.

Thank you for considering the forth coming recommendations.

Sincerely,

Lisa McGhee

SDAP Operations Manager

