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January 8, 2020

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

RE: Docket Number 20-TRAN-04

Commissioner Monahan,

ChargeWheel is proud of the California Energy Commission (Energy Commission) for its leadership & efforts in helping the state meet its zero emission vehicle (ZEV) goals and for continued support for the EV adoption in the low income communities.

ChargeWheel is an EV charging startup based in California, our technology turns private driveways into a shared Fast Charging Station, this Peer to Peer charging network enables ChargeWheel to quickly deploy DC EVSE at 90% lower installation cost and time compared to other traditional charging networks.

ChargeWheel appreciates the Energy Commission for hosting a workshop to discuss potential light duty solicitations to help California meet its ambitious goals. Below, ChargeWheel has included its responses to the concepts discussed in the workshop and looks forward to continuing to support California's transportation electrification goals and actions.

Sincerely,

Huzaifa Muhammad

Founder & CEO ChargeWheel

h@chargewheel.com



I. LDV & RIDESHARE INFRASTRUCTURE SOLICITATIONS

An ideal charging infrastructure for the light duty vehicle application should take following in account:

- 1. For charger deployment charging network should utilize the route data from companies such as UPS, FEDEX, AMAZON, UBER & LYFT. Having access to this data would enable charging networks to deploy chargers strategically in areas which are in route of the delivery or rideshare driver.
- 2. A DC EVSE of 120 KW should be standard for LDV infrastructure, this would enable a UPS or Amazon delivery drivers to get enough miles in just a 9 min stop.
- 3. A block of grants should be dedicated to exploring novel solutions such as ON ROUTE CHARGING for LDV charging network.
- 4.LDV chargers should support solar and battery storage from day one in order to avoid future grid resiliency issues.

II. FUNDING FOR LEVEL 2 CHARGERS AND INSTALLATION

Due to recent technological advancement in the power electronics conversion industry, its becoming easier to install a 40 KW DC EVSE in place of a Level 2 charger, these fast chargers have same installation cost as the Level 2 chargers and uses 120 VAC or 240 VAC input same as Level 2. A 40 KW charger would reduce wait times and would enable California to reach its goal of 250,000 chargers by 2025.

III. FUNDING & POLICY SUPPORT FOR CONVERTING PRIVATE HOME DRIVEWAYS INTO PUBLIC EV CHARGING STATIONS

Latest development in the EVSE space has enabled companies like ChargeWheel to deploy Fast DC chargers in private home driveways, these are bi-directional chargers and also act as backup power source for a home in the event of power outage. Deployment time for each charger is only 2 hours. Which means this could enable a company like ChargeWheel to deploy up to 20,000 chargers per year provided that the funding is available.