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Comment Received From: Alycia Gilde, CALSTART
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Recommendation for a Technical Assistance Grant Program for Infrastructure Planning

Additional submitted attachment is included below.

TO: California Energy Commission
FROM: Alycia Gilde, Director of Fuels and Infrastructure
DATE: February 22, 2019
RE: CALSTART Comments to Docket # 18-ALT-01: 2019-2020 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program.

CALSTART is pleased to submit the following comments for the development of a Technical Assistance Planning Grant for Medium- and Heavy-Duty Zero-Emission Vehicle (MHDEV) Infrastructure Development as a consideration for inclusion of the 2019-2020 CEC Investment Plan.

California is on the leading edge of transformational change of advanced transportation technologies. Important state investments are growing the industry of clean vehicle technologies, enabling the production and use of low carbon fuels, and implementing the infrastructure needed to promote a sustainable transportation network. With this transformational change, the state seeks to realize the benefits these advanced technologies provide to state climate and air quality goals, public health, jobs and the economy.

CALSTART is proud to be a partner in working with government, industry and communities to drive this change. As the administrator of the California Air Resources Board's (CARB) Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program (HVIP), CALSTART has successfully distributed over 6,700 vouchers enabling over 1,000 fleets to deploy medium and heavy-duty hybrid, battery-electric, hydrogen fuel cell, and low NOx natural gas vehicles. In this role, CALSTART works closely with state agencies, manufacturers, fuel suppliers and fleets to address important barriers by putting forth solutions that enable successful technology adoption.

HVIP along with other state funded technology market acceleration programs present an important opportunity to coordinate and plan for infrastructure development to successfully deploy and anticipate the growing emergence of medium- and heavy-duty zero-emission vehicles (MHDEV). Executive Order B-48-18 calls for significant infrastructure development of 250,000 electric vehicle chargers (including 10,000 DC fast chargers) in addition to the development of 200 hydrogen fueling stations by 2025.

With the state's infrastructure development goals for electric and hydrogen vehicles, SB350 utility investments for MHDEVs, and the accelerating pace of transportation electrification, it is critical that deploying solutions are developed to enable successful infrastructure development. One of the critical deploying solutions needed is technical assistance for public and commercial fleets that are planning for and purchasing MHDEVs. CALSTART through its one-on-one engagement with fleets, manufacturers and utilities on infrastructure development is seeing a critical need for technical assistance that proactively puts in place the steps for infrastructure planning and development.

Why technical assistance is needed for MHDEV infrastructure development?

- Unorganized timing, location, and coordination of statewide investments: Infrastructure deployments are not keeping up with vehicle demand, infrastructure planned today only scratches California's surface, and the MHDV EV infrastructure marketplace is chaotic.
- Lack of technical strategies for getting fleets to scale: Infrastructure strategies for powering "high-load fleets" are uncharted, and infrastructure needs beyond today's "beachheads" are unknown.
- Fleet infrastructure knowledge gap: Very few fleets understand MHDEVs and how to make sense of necessary infrastructure. In numerous instances, fleets are planning for vehicle procurement before understanding the infrastructure required to enable successful deployment. This is resulting in vehicles being delivered to site without infrastructure in place to support charging/fueling needs.

How does a technical assistance grant for MHDEV infrastructure planning and development provide a smart deploying solution?

- CEC to establish a program aimed at developing a comprehensive MHDZEV infrastructure strategy, becoming the central figure for coordinating investments among the different agencies and entities, and issuing guidance and advice to key stakeholders.
- CALSTART's potential role in supporting CEC-led program. Through a technical assistance grant, CALSTART, would support the following;
  - » Synchronize Planning for Statewide MHDV Infrastructure Investments. Provide support to understand timing, location, and coordination of current investments—and gaps for electric and hydrogen infrastructure. Work with OEMs to validate the number/nature of vehicle orders and map against planned investments.
  - » Develop Strategies for Getting MHDZEV Fleets to Scale. Help to better characterize the current "frontier" in high-load fleet situations and new MHD charging and fueling applications. Conduct study of current and emerging strategies that harness solar power, on-site storage, and control strategies to avoid peak period charging, with a look to expected utility rate designs. Conduct interviews and lead or support workshops as needed.
  - » Make MHDZEV Infrastructure Work for All Fleets. Help to evaluate fleets' familiarity and perspective about MHDZEVs and infrastructure needs. Identify, concerns, misconceptions, and lacking knowledge about MHDZEV infrastructure that stand in the way of fleets being proactive and effective about adopting MHDZEVs. Share learnings and assist fleets with infrastructure planning.

CALSTART appreciates the opportunity to provide comments to the Commission and stands ready to work with Commission to further develop the concepts proposed here and to successfully implement the Plan.