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SANDAG Comments on Docket No 19-TRAN-02

Additional submitted attachment is included below.



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March 18, 2022

File Number 3504000

California Energy Commission
 Dockets Office, No. 19-TRAN-02
 1516 Ninth Street
 Sacramento, CA 95814

Dear Energy Commission Staff:

Subject: San Diego Association of Governments Comments on Docket No. 19-TRAN-02, Medium- and Heavy-Duty Zero-Emission Vehicles and Infrastructure Funding Allocation Workshop

The San Diego Association of Governments (SANDAG) is pleased to provide comment on Docket No. 19-TRAN-02, Medium- and Heavy-Duty Zero-Emission Vehicles and Infrastructure. SANDAG offers the following comments with strong support for innovative EV charging opportunities, regional planning, and technical assistance funding.

QUESTIONS FOR ALL CONCEPTS

For infrastructure projects, should grant funds be limited to equipment-only costs?

A significant amount of planning and coordination may be required to deploy ZEV infrastructure and grant funding limitations could hinder the capacity of public agencies to complete the scope of work needed to meet state and regional ZEV goals. Additionally, funding that supports innovative projects and development of ZEV technology will accelerate commercialization and allow for more widespread market penetration and adoption of ZEVs and ZE infrastructure.

Which of the proposed concepts should take priority in being further developed?

SANDAG strongly supports the prioritization of the Innovative EV Charging demonstrations and MD/HD Blueprint Planning and implementation projects to meet state and regional ZEV goals.

HYDROGEN REFUELING

Is there interest in developing such projects?

The San Diego Association of Governments supports funding for hydrogen refueling station projects. SANDAG, in partnership with the

Accelerate to Zero Emissions Collaboration, recently completed the San Diego Regional [EV Gap Analysis](#) and found that in order to meet our fair share of state goals, we would need 47 hydrogen refueling stations by 2030. Currently, the San Diego region has only one operational hydrogen station, with 4 more under development.

SANDAG is also working on a Medium- and Heavy-Duty ZEV Blueprint (funded by the first round of the CEC Blueprint GFO) for trucks and buses and expects hydrogen to be an integral part to transitioning to zero emission medium- and heavy-duty vehicles, especially for mid to long range trips that cannot otherwise be met with current battery electric technologies.

Should a MD/HD fueling component be optional or required? At what minimum daily capacity and number of fueling positions?

A MD/HD fueling component should be a strongly encouraged or required element of the hydrogen refueling solicitation. As mentioned above, there are some limitations surrounding the mileage capacity of currently available electric truck and transit batteries. To achieve the fleet transition goals outlined at the state and regional levels, both hydrogen fuel cell and battery electric trucks will be needed. The hydrogen refueling concept solicitation could also address the challenges of passenger vehicle and commercial and transit MD/HD vehicle fueling needs.

Should grant funding be limited to equipment costs, or should it be for all CEC budget categories (i.e., labor, subcontracts, indirect costs)?

Given the high cost of installing a hydrogen refueling station, grant funding for this solicitation should not be limited to equipment costs, and could allow for tasks like planning, design, workforce development, and more.

TRUCK PARKING EV CHARGING AND HYDROGEN REFUELING

What types of entities should be eligible to apply?

In general, private, public, and government organizations should be eligible to apply for this solicitation, especially those with significant trucking activity. Entities with access to sites or areas that can serve public MD/HD refueling needs should be prioritized. Metropolitan Planning Organizations (MPOs) could apply for and receive funding to support and coordinate truck parking EV charging and hydrogen refueling. MPOs typically have perspectives that can support a comprehensive, regional, and networked approach to truck parking EV charging and hydrogen refueling. MPOs could also work to ensure that truck parking EV charging and hydrogen refueling aligns with Regional Transportation Plans and other transportation planning documents.

What would be the best way to integrate truck parking charging and refueling with a freight corridor?

SANDAG is currently working on a MD/HD ZEV Blueprint (funded by the CEC) and several of the questions we are exploring in the region pertain to the questions under this docket.

Additionally, the Port of San Diego is concurrently working on a Truck Transition Plan as part of the Maritime Clean Air Strategy and is addressing several similar concepts in relation to ZEV trucks and other ZE vehicles needed for port operations. To support best practices, SANDAG is responding to the SB 671 Request for Information to inform the Clean Freight Corridor Efficiency Assessment. SANDAG has also provided comment on the Truck Parking Study and Implementation Plan currently underway by Caltrans. Through all of these efforts, SANDAG and collaborators are exploring best practices for expanding and integrating truck parking charging and refueling with freight corridors, as well as other designated routes such as existing and planned alternative fuel corridors.

Which geographic locations should be targeted for these funds?

As mentioned above, SANDAG and other public agencies are considering the use of established corridors for MD/HD ZEV infrastructure planning. SANDAG has participated in the corridor nomination process for SB 671 and in the nomination process for the Alternative Fuels Corridors. While SANDAG and collaborators are still researching infrastructure location and siting, the CEC could consider targeting funds in areas around ports of entry, gateways, etc., that are already established as alternative fuel corridors and well-positioned to deploy MD/HD ZEV infrastructure equitably.

WAREHOUSE AND REGIONAL TRUCKING

How can we best provide refueling/charging options for warehouse and regional fleets?

Early research from the San Diego region shows that battery capacity of electric trucks is limited and will need to be supplemented along routes in addition to charging at destination or domicile locations. Planning refueling and charging options for fleets could also include coordination with local utilities and their charging programs to understand lessons learned, as some utilities have existing fleet charging programs (i.e., SDG&E Power Your Drive for Fleets). A network of varied charging opportunities may help manage demand and the diverse charging needs of different types of trucks, operators, and routes serviced.

Is depot charging/home-base charging sufficient or is public charging or opportunity/destination charging necessary?

As mentioned above, early research around ZEV trucks in the San Diego region shows that the battery capacity of electric trucks limits the range of the vehicle. Therefore, home-base charging may be insufficient and on-route charging or hydrogen fueling options are necessary to ensure freight routes are able to be completed.

Should geographic areas be targeted for these funds?

These funds could be targeted to areas where trucking activity is concentrated to make a larger impact as the state's fleets transition to ZEVs. For example, coastal ports, land ports of entry and gateways, or inland freight corridors could serve as potential priorities for initial regional trucking funding. Disadvantaged and low-income communities could also benefit from additional investment.

INNOVATIVE EV CHARGING AND HYDROGEN REFUELING TECHNOLOGIES

Is a maximum award of \$2M the right amount?

Given the high costs of piloting innovative technologies at a small scale, SANDAG recommends increasing the maximum award amount up to \$5M for innovative EV charging projects. For instance, recent solicitations for wireless EV charging in other states show that a 1-mile technology demonstration project can cost over \$2M; a maximum award amount of \$2M may limit the opportunities for innovation in EV charging and hydrogen refueling around the state. Additionally, adequate funding from the CEC for innovative EV projects can help these innovative and emerging technologies reach commercialization and more widespread adoption throughout the state.

Should we have a 2-phase application process (initial 5-page abstract, followed by a full application if the abstract passes)?

SANDAG is in support of a 2-phase application to streamline the funding process. The opportunity to submit an initial abstract could allow for a more innovative and creative submissions to the solicitation and would help public agencies build staff capacity and complementary funding options prior to having to complete a full application. Furthermore, this process would allow applicants to receive feedback on concepts that best meet the CEC's goals, and further improve local/regional planning.

Should the 2 areas of focus remain the same as the original BESTFIT, or are there other challenges we should consider addressing?

BESTFIT 2.0 should continue to address minimizing operational, purchase, and/or installation costs and should seek to demonstrate advancements in customer experience and charging interface technology. These technology advancement demonstrations are needed to accelerate the transition to zero-emission vehicles, especially in situations where other systems are not feasible due to real estate or distance constraints. For instance, the Port of San Diego is currently working on a Truck Transition Plan; initial research shows that there is a mismatch between the mileage capacity of currently available ZE trucks compared to origin and destination charging opportunities. Therefore, on-route charging is needed to complete some routes with ZE trucks—the BESTFIT solicitation could address this by providing an opportunity to demonstrate and deploy wireless power transfer, or wireless EV charging, as an on-route charging solution. The BESTFIT solicitation could also target Original Equipment Manufacturers (OEMs) to continue along the ZEV pathway for MD/HD vehicles, which will also support vehicle availability, commercialization of technology, and widespread ZEV adoption.

Which subconcepts should be integrated into a MD/HD BESTFIT opportunity?

The MD/HD BESTFIT solicitation could include opportunities to explore innovative charging concepts such as dynamic wireless power transfer (WPT), otherwise known as wireless in-road EV charging. As mentioned above, innovative charging technology demonstrations and pilot projects are necessary to address limitations surrounding current EV charging deployment for MD/HD vehicles. Renewable energy, battery storage, and demand

management applications that support resiliency of charging station and hydrogen fueling stations could also be considered. These projects would greatly benefit from funding and support by the California Energy Commission.

Should there be an increased focus on innovative hydrogen refueling stations in MD/HD BESTFIT?

Hydrogen could remain its own solicitation focus areas, with funding under the MD/HD BESTFIT solicitation focused on the deployment of innovative EV charging and hydrogen fueling technologies and methods. Both hydrogen refueling and EV charging opportunities are needed to meet state clean transportation goals—the BESTFIT solicitation could be especially helpful if its resources were dedicated to innovative EV charging and fueling solutions such as wireless charging, onsite use of renewables, battery storage, innovative and clean hydrogen production, and grid management systems.

MOBILITY-AS-A-SERVICE MODELS

Is there a pool of existing infrastructure-based service providers?

SANDAG is currently working on a Regional Electric Vehicle Charger Management Strategy (REVCMS), which will include the development of an on-call pool of EV Service Providers (EVSP) for public agencies and local governments in the San Diego region to utilize. This EVSP on-call pool aims to streamline the process for public agencies to purchase, install, and operate public charging station while providing better customer service to EV drivers in the region.

MD/HD BLUEPRINT PLANNING DOCUMENTS

Is there interest to have the CEC fund more blueprint documents?

SANDAG supports the CEC funding more blueprint planning projects throughout the state. Additionally, agencies or regions that have already begun blueprint planning work could benefit from the opportunity to apply for additional funding to complete follow-up planning and implementation work related to existing blueprint documents.

Should the blueprints be targeted to a specific geographical area? Nonattainment areas, disadvantaged communities, low-income communities?

The blueprints could prioritize or have additional funding bonuses for work focused on Disadvantaged and Low-Income Communities. These priority areas could be determined/set by the CEC using existing legislation (e.g., AB 1550, SB 535, AB 617) or identified by the applicant at a regional or local level if existing applicant can reasonably justify why existing legislation does not qualify.

What is the reasonable cost for a blueprint?

A maximum award amount of \$400k could be reasonable for comprehensive regional or multi-fleet blueprint planning efforts. Current blueprint funding is limited to a maximum

award amount of \$200k and asks for analysis, planning, community engagement, workforce considerations, and development of key actions and strategies to transition a fleet to ZEVs. For larger regions or fleets, community engagement and workforce development aspects can be especially expensive. SANDAG recommends that MPOs, local governments, or applications that are not single-fleet focused be eligible to apply for additional funding to support essential and meaningful community engagement and workforce development.

Is additional technical assistance needed after a blueprint or planning is complete to expedite project implementation?

Technical assistance could be beneficial to fleet operators, local governments, and property owners after the blueprint project to support efficient and equitable implementation of the actions identified through the blueprint document. For the CALeVIP: San Diego County Incentive Project, technical assistance was provided to applicants from underserved communities in the region to support EV charging infrastructure deployment in these areas. The project also has an outreach and education component that ties closely to technical assistance offerings for local jurisdictions to become permit streamlined for EV charging infrastructure.

What kind of technical assistance?

Technical assistance could be provided to fleet and property owners to help them navigate the various legislation and funding opportunities available to them to acquire ZEVs or install ZEV infrastructure. Small fleet owners and property owners could benefit from technical assistance for design, siting, funding, business case development, and more. Additionally, technical assistance could be provided to public agencies and local governments to support public fueling or station development and permit streamlining for MD/HD EV charging and hydrogen stations, similar to the current work by CA Governor's Office of Business and Economic Development for AB 1236 and AB 970.

How would the additional technical assistance affect ZEV infrastructure timelines?

Technical assistance through the project term and potentially for one year after infrastructure planning could expedite project timelines in the long run by ensuring the needs of fleets and other small ZEV-related business owners are met, especially in terms of equity to support priority areas' transition to ZEVs.

Sincerely,

Susan Freedman
Climate Program Manager

SFR/JHOY/SELD