BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of San Diego Gas & Electric Company (U 902E) for Approval of SB 350 Transportation Electrification Proposals.

And Related Matters.

Application 17-01-020
(Filed January 20, 2017)

Application 17-01-021
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REBUTTAL TESTIMONY OF CALSTART ON THE STANDARD REVIEW TRANSPORTATION ELECTRIFICATION PROPOSALS FROM SAN DIEGO GAS & ELECTRIC, SOUTHERN CALIFORNIA EDISON, AND PACIFIC GAS AND ELECTRIC

Ryan Schuchard
Policy Director
CALSTART
501 Canal Boulevard #G
Richmond, CA 94804
Tel: (626) 744-5606
E-mail: rschuchard@calstart.org

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I. INTRODUCTION


CALSTART is a nonprofit organization that aims to accelerate the commercialization of clean transportation technologies. CALSTART has over 175 organizational members including vehicle and component manufacturers, transit agencies, goods movement operators, and other commercial fleets.

Among CALSTART’s many initiatives and working groups, it leads the Electric Fleet Alliance (EFA), a coalition of industry stakeholders who are seeking to deploy medium and heavy duty electric vehicles (MHDVs) and that are interested in the SB 350 proceeding. EFA members include Anaheim Resort Transportation, San Diego Airport Parking Company, Foothill Transit, and UPS (fleets), as well as BYD, Motiv Power Systems, Efficient Drivetrains, and Thor
Trucks (technology manufacturers). Members of the EFA broadly support the programs proposed in the utilities’ SB 350 applications.

In the following pages, we will refer to medium and heavy duty vehicles (MHDVs), which include on-road, off-road, people movement, goods movement, and vocational work vehicles from classes 3-8 (i.e. 10,000+ lbs GVW).

II. DISCUSSION

A. We agree that the PG&E and SCE proposals are on target and consistent with state objectives, and that the programs proposed should be comprehensively approved by the Commission.

In opening testimony, several parties supported the PG&E and SCE proposals, saying that the proposals are on target and consistent with state objectives, and in turn, that the programs should be comprehensively adopted by the Commission (ChargePoint, NRDC, VTA, SDAPC, UCS, CCAEJ, East Yard, and USC). CALSTART agrees. Significant new infrastructure and rates programs for MHDV electrification are needed to effectively implement SB 350, to achieve state climate and air quality (AQ) goals, and to serve ratepayer interests.

Commenters raised several detailed points in support of the proposals that CALSTART agrees with as well: (1) lifecycle greenhouse gas (GHG) emissions from electric vehicles (EVs) are lower than from internal combustion engine vehicles and they are decreasing (UCS); (2) electrification of MHDVs avoids dangerous air pollution (USC); (3) electrification of MHDVs, especially in the context of freight, directly alleviates AQ and environmental justice disparities (CCAEJ, East Yard); (4) a breadth in the programs from the IOUs are needed to ensure that investments are made in charging infrastructure across all MHDV types (NRDC); and (5) PG&E and SCE have taken an important step towards ensuring that they will not unfairly compete with nonutility enterprises (ChargePoint).

CALSTART has provided evidence and perspective in support of the proposals, and in a manner consistent with the comments of stakeholders mentioned above, in our opening testimony.
B. We agree that PG&E now should develop EV demand charge solutions rates, and that over time more will be needed from all IOUs to develop more creative rates solutions to address the barriers that demand charges pose to MHDV adoption.

Several parties suggested that all investor owned utilities (IOUs) should develop and offer rates that alleviate the high costs and financial risks associated with demand charges (ChargePoint, NRDC, SDAPC, VTA), which we will heretofore call “demand charge solutions rates.” We agree; doing so is needed to make the operational costs of MHD EVs approach being cost-competitive with their conventional ICE counterparts, as stated in our opening testimony.

One party recommended that the time horizon for SCE’s proposal to eliminate EV demand charges, which is 5 years, to instead be extended to the calendar year of 2025 (GPI/CEC). We welcome the spirit of this comment, which fundamentally says that widespread MHD EV adoption will depend on all of the IOUs going beyond the first generation of rates embodied in SCE’s proposed rate to developing even more creative, successive waves of demand charge solutions rates. For reference, CALSTART has discussed the current and future needs for demand charge solutions rates extensively in its opening testimony.

C. We agree that PG&E and SCE should conduct robust education and outreach, and do so in close partnership with expert organizations and agencies.

A few parties proposed that the PG&E and SCE programs should include robust education and outreach (GPI/CEC, NRDC). We agree, because fleets are generally quite new to electrification, especially smaller fleets, and they are largely not aware of or confident in the benefits of electrification for MHDV applications. Furthermore, we believe that third-party facilities and programs may need to be established to effectively identify and engage with MHDV buyers. This is because operators of MHDVs, in contrast to those of light duty vehicles (LDVs), tend to be commercial fleet operators who rely on professional industry forums to seek trustworthy advice about weighing the benefits of and developing strategies for different drivetrain technologies. Such fleets are approached constantly by technology-specific vendors and tend to be wary about information regarding technology that is being sold by the same technology vendor.

Moreover, whereas with LDVs, the users of EV are generally also customers of the utility, with the MHDV market, fleet operators are not necessarily existing utility customers (e.g.
while one company may use the same utility for both its stationary power and prospective fleet electrification services, the business units which deal with stationary electricity and fleet operations are often separate. As a consequence, in order for IOUs to effectively reach fleets, they will need to rely in part on the expertise and relationships of industry intermediaries. We therefore recommend that the Commission either issue a funding solicitation, or direct the utilities to issue a solicitation, for the development of a MHD EV technology center focused on vehicle purchasing and adoption trends and dynamics that the utility would work with closely. CALSTART is well-positioned to lead such a facility.

One party suggested that education and outreach pay particular attention to disadvantaged communities (DACs) in order to account for barriers to adoption that may be specific to those communities (NRDC). As outlined in our opening testimony and prior briefs, MHD EVs are valuable precisely because they offer benefits to DACs throughout the state.

However, we would offer two cautions: First, in the context of advancing AQ benefits of MHD EVs to DACs, utility customers and the members of disadvantaged populations who are beneficiaries will tend to be separate and distinct. Generally speaking, the “customer” is a professional fleet operator that is driving vehicles which cause (or negate) air pollution, and the beneficiaries are residents living proximate to roads or hubs where AQ improves when air pollution is reduced. The communities that the fleet operators benefits by displacing diesel particulate matter and other air pollution may not be located precisely where the vehicles creating the benefits are domiciled.

Second, in contrast to stationary sources, mobiles sources (i.e. vehicles) move physically across many communities or even regions, making the task of establishing objective investment criteria for targeting DACs with MHDVs difficult. If one had perfect information about vehicle routes and highly-local air quality, the task could be relatively straightforward. However, California’s network of air quality monitoring stations is incomplete (e.g. it is not common for local neighborhoods, schools, or community gathering places near highways to monitor diesel particulate matter), and vehicle routes vary widely within fleets and are not necessarily known in advance of the purchase.

Therefore, for the current proposals, we recommend that strategies to target DACs focus less on trying to institute more rigorous objective criteria (for which underlying science and measurement is not well-developed) and more by encouraging IOUs to work with an advisory
group consisting of industry organization and agencies such as the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project, or HVIP (which is California’s main program for providing incentives to clean trucks and buses—having deployed over 3200 to date), to establish tactics for best matching MHDV customers and DAC beneficiaries.¹

D. We disagree that the scope and budget of the PG&E and SCE programs should be reduced; if anything, we believe they should be increased.

A few parties recommended that PG&E and SCE should reduce the scope and budget of their programs (TURN, ORA, Clean Energy). We disagree and believe that doing so would be counterproductive. The PG&E and SCE proposals provide a unique path to tackling key state goals, and importantly, the programs have been vetted and are supported by key users and EV service providers who will be implementing the technology.

The main rationale for reducing the size of the programs from these parties appears to be that the MHDV EV market is too uncertain and immature (ORA, Clean Energy). We disagree with this finding. MHDV electric drivetrains are commercially available and, except for higher costs, ready to be scaled up, in particular with transit, as detailed in our opening testimony. All major types of commercial fleets are actively developing plans to deploy MHD EVs, and now MHD EVs are hitting the roads more quickly than was anticipated even a short time ago. Just since the opening testimonies, we have seen three new milestones in electric trucks—the launch of initial products by two new manufacturers, Chanje (electric panel vans) and Bollinger (electric pickups) and a groundbreaking announcement by Cummins of a Class 7 electric drivetrain.

A primary barrier to MHD EV adoption is precisely the inadequacy of infrastructure. If we continue to wait for more vehicles to build infrastructure, it is not reasonable to expect the vehicles to arrive on their own—hence it is circular to argue that we should not invest boldly in EV infrastructure because the market is young.

One party also suggested that large public investments in MHDVs could impede environmental objectives, evidently because doing so could displace more cost-effective investments in near zero emission vehicles (NZEVs)—principally, heavy-duty Low NOx trucks using renewable natural gas (Clean Energy). We disagree that there is a meaningful “either/or” choice to be made. Vehicles other than those with conventional ICE petroleum engines comprise

¹ CALSTART is administrator of HVIP.
less than 5% of the MHDV market, which means that over 95% of the market is available for new growth.

We also note that although MHDVs are still in an early commercial phase, the risk of stranded assets is contained because PG&E and SCE are proposing infrastructure only up to make-ready stub, and the decision to deploy infrastructure investments is well-vetted by fleets, who must first make large matching investments on their own in the form of vehicles.

The purpose of SB 350 and the spirit of this proceeding is to shift to a higher speed of commercial deployments that have already begun. Therefore, the sizes of the programs need to be maintained, and in particular, the time horizons should continue as proposed, so that fleets—who may take several years to plan for and phase in group vehicle purchases—have confidence that the programs will be solvent in the future. As to the size of the financial investments of PG&E or SCE programs change, should those sizes change, they should increase, since dramatic expansion of charging infrastructure is needed to support state goals and vehicle adoption targets.

E. We disagree that the PG&E and SCE cost recovery options should be scaled back, since IOUs need maximum flexibility to succeed in an early-commercial market.

A few parties recommended that the Commission restrict cost recovery options of the PG&E and SCE programs (TURN, ORA), on the basis that the proposed levels are unnecessary. We disagree with this proposition. Utilities need flexibility for different levels of cost recovery since fleets are varied in size, location, and application; because the market is young and hence new charging models are being developed; and because the expectation of cost recovery for charging infrastructure will likely be a part in the calculation of fleets when they consider purchasing vehicles.

Commenters proposed three reductions that we would challenge specifically. First, one party recommended prohibiting PG&E and SCE from carrying over budgets between years up to year 5, on the basis that doing so creates perverse incentive for spending more (TURN). We disagree; the utilities should be given flexibility to carry over the budget between years, because fleet adoption may be “lumpy,” that is, relatively large investments that happen infrequently and sporadically. Since the goal of SB 350 is to commercialize new technology, utilities need flexibility with respect to the timing when investments roll out, so that they can best meet the needs of the market when they arise.
Second, one party recommended prohibiting SCE from seeking approval for ex-post cost recovery for more expensive projects (TURN). We disagree; we recommend allowing requests on a case-by-case basis, since it is reasonable to anticipate at least some special circumstances, and barring even consideration of special cost recoveries is effectively barring even the potential for any out-of-the-norm yet potentially highly-beneficial infrastructure. Considering that vehicle purchase decisions by fleets are likely to take into account the expectation of available infrastructure, it is important for the program to maximize options for fleets.

Third, one party recommended reducing PG&E and SCE cost-contingency from 35% to 10% on the basis that supporting a wide array of electric technology and different charging scenarios results in substantial cost variations is unfounded (ORA). We disagree with reducing the cost-contingency; utilities need flexibility for the reasons above.

Taking these points together, reducing cost recovery options could directly dampen vehicle purchases, since we expect fleet customers who are considering MHD EVs to pay close attention to infrastructure availability and incorporate expectations about utilities’ ability to invest into the business case and decision making. We also note that industry players such as ChargePoint, VTA, and members of CALSTART’s Electric Fleet Alliance are supportive of the infrastructure proposals, which we believe is a strong sign that the programs are appropriately developed in terms of size and focus.

III. CONCLUSION

The California legislature has made it clear that the Golden State will be a leader in tackling climate change, and as part of that, it must accelerate the widespread electrification of transportation, which causes over 50% of the state’s GHG emissions when considering both vehicles and oil refineries. This fact makes investor owned utilities—the state’s primary provider of electricity services—a foundation for achieving the state’s goals. If we are to be successful, the investments made by IOUs must be commensurate with the challenge, both in terms of scale and speed, and IOUs need to be given the flexibility to implement programs effectively.

Fleets do not have an intrinsic interest in drivetrains that are electric versus conventional technologies, and so given the many decades and billions of dollars in subsidies to fossil fuels, significant new investment is needed in order to make widespread transportation electrification a reality. Indeed, the very essence of SB 350 is that we must make our programs for MHDV
electrification large, fast, and bold. CALSTART joins the many other commenters representing a diversity of climate, environmental justice, community health, and industry interests who have called for the Commission to expeditiously approve the PG&E and SCE programs as proposed, and for PG&E to develop a first demand charge solution, and for SDG&E to develop an infrastructure program.

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Respectfully submitted,

/s/

Ryan Schuchard
Policy Director
CALSTART
501 Canal Boulevard, Suite G
Richmond, CA 94804
Telephone: 626-744-5606
Email: rschuchard@calstart.org