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CalETC and EVCA's Joint Comments on AB2127 Second Assessment

Additional submitted attachment is included below.

September 20, 2023

California Energy Commission
California Department of Transportation
Re: Docket No. 19-AB-2127

Submitted electronically to https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=19-AB-2127

Re: AB 2127 Second Assessment Draft Staff Report

The California Electric Transportation Coalition (CalETC) and the Electric Vehicle Charging Association (EVCA) appreciate the opportunity to provide comments on the AB 2127 Second Assessment Draft Staff Report (Draft Report). We would like to thank the CEC for all your hard work on developing the Draft Report and commitment to meeting California's charging infrastructure goals.

CalETC supports and advocates for the transition to a zero-emission transportation future to spur economic growth, fuel diversity and energy independence, contribute to clean air, and combat climate change. CalETC is a non-profit association committed to the successful introduction and large-scale deployment of all forms of electric transportation. Our Board of Directors includes representatives from: Los Angeles Department of Water and Power, Pacific Gas and Electric, Sacramento Municipal Utility District, San Diego Gas and Electric, Southern California Edison, Southern California Public Power Authority, and the Northern California Power Agency. In addition to electric utilities, our membership includes major automakers, manufacturers of zero-emission trucks and buses, electric vehicle charging providers, autonomous electric vehicle fleet operators, and other industry leaders supporting transportation electrification.

EVCA is a trade association representing charging infrastructure manufacturers, installers, operators, maintenance providers, and any company with a vested interest in the successful deployment of EV charging infrastructure that engages in the legislative process, regulatory rulemakings, and incentive programs designed to advocate for the growth of both the EV and EV charging industries. EVCA proactively engages in California, Oregon, and Washington to grow the EV and EV charging markets across the West Coast.

We support the Draft Report's assessment, but we are concerned that California is not on track to meet its charging infrastructure goals. California has a goal to install 250,000 chargers by 2025 and we currently have just under 100,000 public and shared private chargers.[1] This Draft Report calls for 1.1 million chargers to be installed by 2030 and CalETC's own assessment puts that number

[1] On September 16th, 2023, the CEC's electric vehicle charger count was 93,855. See https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics/electric-vehicle.

between 4 and 6 million chargers.[2] We recognize that the CEC's current charger count does not include chargers in private residences, which should be included in the total number of chargers needed. Regardless, we need major changes in the way we plan for and build charging infrastructure and the associated grid infrastructure to meet our charging goals, including a sustained focus on addressing barriers to VGI, accelerating managed charging, and addressing the grid planning and investment challenges associated with uncertain location, magnitude, and timing of EV load. Additionally, we thank the CEC for their continued leadership in facilitating the deployment of EV charging infrastructure and encourage the CEC to complete the reliability regulations by January 1, 2024 per AB 2061 (Ting), which will improve reliability of EV charging stations.

We recommend continuing to prioritize and fund both DCFC and L2 at as high of a rate as possible. We will need both types of charging to achieve our goals and at this early stage in the market we should not prioritize one at the expense of another. We need equity in access and affordability for all Californians. DCFC must be widely available to satisfy immediate charging needs across a diversity of use cases, including ride-share, autonomous vehicles, long-distance trips, high milage daily drivers, and multifamily residents with limited or no access to home charging. While, DCFC is more expensive to install than L2 on a charger-by-charger basis and may require additional grid planning to ensure sites can be energized, DCFC is key to ensuring convenient charging for any EV driver without a dedicated charging spot where they can park for an extended period of time. Typically, DCFC is more expensive compared to home charging where drivers can access off peak rates at lower power. California is working on solutions to enhance affordability of fast charging for income-qualified EV drivers that may not have access to charging at home, including a $2,000 charging card as a part of CARB's rebate and assistance programs. L2 is effective for longer dwell time charging at workplace, curbside, commercial, or residential locations. There are barriers that need to be overcome to install widespread charging at existing multifamily housing, but it is imperative to overcome those barriers so multifamily housing residents can take advantage of low-cost charging on residential rates. In the interim, DCFC will be necessary to fill the gap. The California Green (CalGreen) Code is helping to at least partly fill that gap by steadily increasing the requirements to install L2 and low-power L2 (20-amp receptacles) in newly constructed multifamily housing. The CalGreen Code also includes triggers to install raceways and panel capacity for charging when certain improvements are made to a parking facility. Steady increases in minimum requirements will improve access to EV charging for multifamily residents over time. Longer dwell time charging provides opportunities to use automated load management systems (ALMS) to improve charging performance and reduce the upstream impacts to the grid. Finally, CalETC supports the CEC completing the analysis of the existing and potential benefits of curbside charging referenced on page 33 of the Draft Report.

We recommend the AB 2127 report address the grid planning challenges associated with uncertain EV charging load. We support continuing to model the statewide projected charging load for both

[2] *The Infrastructure Needs and Costs for 5 Million Light-Duty Electric Vehicles in California by 2030*, June 1, 2020, CalETC. Available at: https://caletc.com/assets/files/EV-infrastructure-study-white-paper-FINAL.pdf.

light-duty (LD) and medium- and heavy-duty (MHD) zero-emission vehicles (ZEVs). We recommend including a discussion in the Draft Report of the challenges the state faces for planning the infrastructure rollout when the load location and timing are uncertain. To that end, we recommend meeting with the utilities to discuss the granularity and representativeness of the charger count and modeling inputs. Utilities are seeking accurate inventories of the chargers already active or deployed pending energization in their service territories to understand the locations and what facility/customer class the chargers are serving. Typically, utilities have visibility into the chargers that are installed as part of one of their programs (e.g., rebate, discount rate, make-ready, etc.), but when the chargers are installed through regular service request that aspect may not necessarily be shared with the utility. Improving the accuracy of the charger counts with utility service territories will help utilities track progress towards goals and to efficiently prioritize limited resources to close gaps while minimizing upward rate pressure in the near- to mid-term.

CalETC understands that the EDGE tool is intended to address grid constraints and appreciates that the CEC recognizes that some chargers will trigger grid upgrades. On page 63 of the Draft Report, the EDGE tool is described as helping recognize grid capacity constraints by identifying areas where the expected load growth could exceed grid capacity limitations. We will follow up with CEC staff to request a meeting to discuss the input and assumptions in the EVI-Pro, Roadtrip, and EDGE models, including the inputs for specific locations where load growth is expected within utility service territories, whether it is expected to constrain the grid or not. The utilities and other EV stakeholders would benefit from the CEC sharing data on the expected load growth resulting from CARB's regulations and other ZEV requirements, per AB 2700 (McCarty), and perhaps this data could be provided within the Report itself. The CEC would also benefit from coordination with EPRI and their implementation of the DOE-funded EVs2Scale effort to coalesce around a common statewide model to inform distribution and transmission planning for transportation electrification and distributed energy resources.

We strongly support using the high EV adoption scenario in the Integrated Energy Policy Report (IEPR). Using the higher EV adoption scenario will help get state and utility investments on track to reach our goals. More will need to be done, but it is critically important to set the demand forecast accurately so utilities can properly plan grid upgrades.

We also support the Draft Report's characterization of the current state of vehicle-grid integration (VGI) and we support continued efforts to remove roadblocks to achieving the five categories described in Chapter 6 of the report. We agree that the state needs to emphasize the use of managed charging and accelerate VGI, including UL- certified load management, and we need to use data from real world applications of load management, not just modeling, before it can be accounted for in grid planning. For example, the Draft Report cites dynamic rates as helping encourage VGI, but this is just one potential, and as-of-yet unproven, mechanism for aligning charging with grid needs. Managed charging programs could be as or more effective and help address distribution impacts from EVs, which have the potential to be a large cost driver in California going forward. Today, public DCFC is not a prime use case for VGI solutions, however, more research is needed into creative strategies that could reduce demand on the grid. Time of

use rates, solar, storage, strategic curtailment, or incentives to use one DCFC location over another could help reduce demand on the grid from DCFCs. Long-dwell times provide more opportunities for VGI and load management because there is more load flexibility, and therefore, we encourage the CEC to allocate more VGI funding and attention to those use cases.

We support the CEC's characterization of the need for workforce training and development with a focus on opportunities for equity community members. We recommend including an analysis of the need and plan to train grid engineers and specialized electrical engineers that can analyze and design complex grid systems.

We recommend including shared depot charging as a MHD charging segment along with depot charging and on-route public charging. Shared depot charging supports a "subscription model" where two or more private fleets share a facility. These facilities can serve both overnight and daytime or on-route charging and present an opportunity to plan for infrastructure more efficiently and cost effectively. Fleet operators need safe, secure, guaranteed access to charging and often face grid, space, capital, or lease constraints at their facilities, which limit their ability to install on-site charging. Shared depot charging will be a key strategy to meeting MHD charging needs along with depot charging and on-route public charging.

Thank you for your consideration of our comments. Please do not hesitate to contact us at kristian@caletc.com or reed@caleec.com should you have any questions.

Kind regards,

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