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Peninsula Clean Energy Authority Comments on the Second Block Grant for Light Duty Electric Vehicle Charger Incentive Projects

Additional submitted attachment is included below.

PENINSULA CLEAN ENERGY

Serving the San Mateo County Community

January 8, 2021

Re: Docket: 20-EVI-01 – Peninsula Clean Energy Authority Comments on the Second Block Grant for Light Duty Electric Vehicle Charger Incentive Projects

These comments are submitted by Peninsula Clean Energy Authority (PCE), San Mateo County's official electricity provider, generating clean and affordable power and making significant reinvestments back into the community. PCE appreciates the opportunity to provide feedback to the California Energy Commission (CEC) on Docket 20-EVI-01, which will inform the design of the second block grant for light duty electric vehicle charging incentive projects.

In these comments, PCE recommends that the CEC:

1. Should continue to provide generous incentives to Electric Vehicle Supply Equipment (EVSE) installations at multifamily housing,
2. Allow incentives to be used for assigned parking at multifamily housing,
3. Encourage the use of Level 1 and power-managed Level 2 charging to yield additional EVSE deployment,
4. Award funding on a lottery system or other system structure for more equitable funds distribution,
5. Increase the minimum Direct Current Fast Charger (DCFC) power threshold to 100+ kW and only require no more than one CHAdeMO adapter per site,
6. Allow participating agencies to integrate promotion and optionally require participation in technical assistance programs.

Discussion #1: Goals/Outcome of Block Grant

I. The CEC Should Continue to Provide Generous Incentives to EVSE installations at Multifamily Housing

While EV adoption is growing across the state, the roughly 1/3 of Californians that live in multifamily housing typically do not have access to home charging, providing a significant barrier to EV adoption. Furthermore, adding EV charging at multifamily housing can be more complex and costly than an EVSE installation at a single-family home. Both technical and financial assistance are critical to support EV adoption among multifamily housing residents and should be a continued major focus of the CEC in the near term. Based on this situation, PCE supports the incentives as a key means to support EV adoption in the multifamily housing context.

II. Allow EVSE Incentives to be Utilized for Assigned Parking at Multifamily Housing

PCE encourages the CEC to explicitly allow funding to be used for assigned parking at multifamily housing, in addition to parking that is shared. Restricting funds to shared parking, as is the current requirement for CALeVIP, dramatically reduces access to charging that the incentive program can facilitate. Parking spaces at multifamily housing properties are often deeded or assigned, by some estimates as much as 80% or more according to some industry consultants, and tenants are unable to switch parking spaces. Limiting funding to shared parking only limits the scale of investment that could be possible to parking that does not exist at most multifamily properties. Furthermore, the Americans with Disabilities Act (ADA) requirements that are necessary when creating a new shared parking space within an existing multifamily property are often a nonstarter with multifamily property owners. Allowing for funding to be utilized for EVSE installations at assigned parking, combined with Level 1 or power-managed Level 2, allows for multifamily properties to more easily explore deployment scenarios where every tenant can get access to EV charging, which is critically needed to accelerate EV adoption. CEC staff have suggested a reticence to provide incentives which result in individual benefit, however the state already provides vehicle incentives which provide individual (and societal) benefits (such as the Clean Vehicle Rebate Program) and, for rental apartments in particular, EV charging benefits are in actuality shared over time by different tenants who may reside in a given rental unit over time. Most importantly, if the state is to be successful in deploying EVSE it must provide funding to support the deployment of EVSE to all market segments so that all consumers have an opportunity to purchase an EV and charge it easily within their daily lives.

This is a critical component of an equitable push for EV adoption. There are multiple funding programs that assist in the purchase of a vehicle, but very limited resources available to the other critical component of EV ownership, charging. Allowing for the including of assigned parking spaces at multifamily housing will great expand the number of Californians with low incomes that can transition to EVs,

III. Encourage the Use of And Provide Financial Support for Level 1 and Power-Managed Level 2 Charging to Yield Additional EVSE Deployment

Both Level 1 and power-managed Level 2 charging with 1.4 kW minimum capacity provide the ability for multifamily housing managers/owners to meet the daily charging needs of their residents, providing a minimum of 40-50+ miles of range or more per overnight charge. PCE encourages the CEC to allow these property owners/managers to opt for the technology option that makes the most sense for their development based for example on unique installation circumstances or cost savings, and convenience for residents.

Level 1 charging is an excellent low-cost charging option to provide access to EV charging for multifamily residents. Level 1 charging is already in widespread use among current EV

owners. A report[1] by the California Air Resources Board shows that *over half* of all EV drivers are successfully using Level 1 charging (either a standard outlet or Level 1 EVSE) to charge their vehicle. Furthermore, the cost of installing Level 1 charging can be considerably cheaper than traditional Level 2 charging, allowing CEC resources to yield additional EV charge ports.

Advanced load management systems (ALMS), also referred to as "power managed Level 2" charging in these comments are a key strategy in expanding the total possible deployment of traditional Level 2 EVSE by utilizing energy controls. PCE encourages the CEC to explicitly incorporate the utilization of these technologies in program design as a strategy to expand the number of EV charge ports possible at a site without incurring expensive electrical infrastructure upgrades. The CEC should also provide additional education opportunities on ALMS further promote their widespread utilization throughout the state and feature case studies where these technologies have been deployed.

Both Level 1 and power-managed Level 2 charging can significantly lower the cost of EVSE installations. The installed cost for Level 1 charging can run as low as under $2,000 per port and power-managed Level 2 charging under $4,000 per port within a given service capacity (with power-managed Level 2 providing higher service levels generally). The actual cost benefits grow substantially when factoring costs of increasing service capacity. Increasing distribution grid service capacity can raise costs by tens of thousands of dollars. Level 1 and power managed Level 2 can provide as many as five (5) ports or more within a given 40-amp circuit whereas that same capacity might only support one conventional unmanaged Level 2 port. Costs for unmanaged Level 2 ports can run as high as $18,000 per port as reported by PG&E on their EV Charge Network program[2]. As a consequence, the overall costs to build out the CEC's projected 250,000 ports by 2025 can be expected to be dramatically lower with the inclusion of Level 1 and power-managed Level 2.

Discussion #4: Rapid Deployment of Funds

I. Award Funding on a Lottery System or Other System Structure For More Equitable Funds Distribution

The current fund reservation system – a first come, first served system – favors large EVSE companies over smaller, independent applicants. As structured, this system does not equitably distribute funds to all applicants, but instead concentrates funding into a few large EVSE companies. Moreover, it concentrates funding in projects that support site types and applicants that have the budgets to support an EVSE project, primarily

[1] https://ww2.arb.ca.gov/sites/default/files/2020-01/appendix_b_consumer_acceptance_ac.pdf
[2] PG&E EV Charge Network Quarterly Report (July 1, 2019 – September 30, 2019), p. 13, available athttps://www.pge.com/pge_global/common/pdfs/solar-and- vehicles/your-options/clean-vehicles/charging-stations/program-participants/PGE-EVCN-Quarterly-Report-Q3- 2019.pdf (reflecting PG&E's average cost per port of $17,973 through Q3 2019 in the EVCN program)

large workplaces. Smaller site or project types that need the funding are at a disadvantage to participate. These site types would include small MUDs, small and medium businesses, Affordable Housing, and low-income MUDs, who are shunted to the back of the line. This outcome is fundamentally inequitable and at odds with state goals to deploy EVSE broadly to all Californians. Most importantly, this policy again undermines the ability of stakeholders to deploy EVSE in and where consumers are and broadly so EVSE adoption is supported in all communities.

To increase equity in EVSE funding and to support EVSE deployment in all contexts, the funding system should be restructured to ensure a more equitable and fair deployment of funds. This system could be structured as a lottery system that does not favor large EVSE companies or similar to include more participants.

Other Comments to Improve Program Structure and Design

I. Increase the Minimum DCFC Power Threshold to 100 kW+ or more And Only Require One CHAdeMO Adapter Per Site

In current block grant programs, the power requirements for DCFC sites are 50-99.99 kW and 100 kW+. Future programs should increase the minimum power requirement from 50-99.99 kW to 100 kW+ and also increase the second-tier requirement to greater than 150 kW.

DCFC is a critical element to support and drive the adoption of EVs in California. Supporting faster charging technologies is necessary to provide adequate charging options and capabilities to future EV owners for several reasons. First, faster charging enables a higher through-put per site (more cars can utilize a port on a daily basis) thereby increasing efficiency of the infrastructure and the capital investment used to fund the stations. Second, as the suite of EVs on the market increase and improve, larger batteries may necessitate quicker charging technologies to maximize the usefulness and range of those vehicles. Third, critics of EVs cite the refueling or recharging speed relative to internal combustion engine (ICE) vehicles as a reason to avoid purchasing EVs.

In current block grant programs, such as CALeVIP, DCFC sites are required to install an equal number of CHAdeMO and CCS connectors. Early EVs, primarily from Japanese automakers, such as Nissan, used the CHAdeMO standard to serve DCFC needs. Nearly all other automakers use the CCS standard for DCFC needs. Recently, Nissan stated that future EVs will not include CHAdeMO as the DCFC standard and instead switch to CCS standard.

Future block grant programs should remove the requirement to include an equal number of CCS and CHAdeMO connectors and require one CHAdeMO connector be

installed per site. Over the lifetime of the DCFC infrastructure, the EV population will increase rapidly thereby relegating vehicles with CHAdeMO standards to a small percentage of the vehicle fleet. Continuing to require multiple CHAdeMO connectors per site is incongruent with future EV trends and DCFC use. As the market continues to evolve, the CEC should continue to monitor and possibly remove the requirement to have any CHAdeMO connectors, if necessary.

For further comments, please refer to PCE comments submitted on CEC Docket 17-EVI-01 from September 17, 2020 titled "Peninsula Clean Energy Supports Proposed DCFC Changes" TN #234819[3].

II. Allow Participating Agencies to Integrate Promotion and Optionally Require Participation in Technical Assistance Programs

Technical assistance is an important element to delivering a cost efficient and successful project. While current CALeVIP offers limited technical assistance through a central program administrator, the technical assistance offered does not adequately address the individual needs and local project nuances present in participating agencies regions. PCE and other local agencies offers a robust technical assistance program that educates sites on EV charging installation option and operation, specifically addressing the local buildings and site types to deliver tailor-made solutions. The technical assistance delivers clear and comprehensive site evaluations that seek to maximize the number of ports installed for the least cost possible. The final project scopes ensure that the incentive funding available has the maximum impact it can have while also future proofing for continuing EV expansion.

Integrating participating agencies' technical assistance programs and offerings into promotion and marketing may help to increase the number of ports installed under the funding program. It will also help to educate landlords on EV charging management and operation, such as pricing controls, to further ensure the EV ownership experience is positive and more convenient that ICE ownership. Moreover, by the second block grant could optionally require participation in technical assistance programs. If technical assistance is required, projects funded through the second block grant will ultimately install more stations per dollar invested and ensure that the sites a 'future proofed' for EV growth.

If you have any questions regarding these comments, please do not hesitate to contact me at jwiedman@peninsulacleanenergy.com and (650) 260-0083.

Sincerely,

[3] https://efiling.energy.ca.gov/GetDocument.aspx?tn=234819&DocumentContentId=67673

/s/

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