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Xeal Comments in Support of REACH 2

Additional submitted attachment is included below.

February 22, 2023

California Energy Commission
715 P Street
Sacramento, CA 95815

RE: Funding Allocations for Light-Duty Passenger Electric Vehicle Charging Projects

Dear California Energy Commissioners and Staff,

Xeal Energy appreciates the opportunity to provide our input and support for the California Energy Commission's (CEC) proposed Funding Allocations for Light-Duty Passenger Electric Vehicle Charging Projects. Specifically, Xeal strongly supports development and investment in multi-family housing charging infrastructure, including the Reliable, Equitable, and Affordable Charging for Multi-family Housing 2.0 (REACH 2.0,) and other potential future funding concepts.

Xeal offers multifamily and commercial real estate owners and operators the ability to seamlessly install smart electric vehicle (EV) charging in their communities with little to no infrastructure upgrades. Clients manage these smart EV charging stations remotely through Xeal's dashboard, providing real-time data on charging sessions, energy management, utilization, and revenue share. Xeal's driver app employs a token-based technology for EV drivers to gain reliable access to charging stations without relying on cellular or garage IT infrastructure. Through Apollo, a groundbreaking decentralized communication protocol, building owners can remotely control and monitor smart charging stations through a bi-directional management channel between user smartphones and EV chargers to establish a more secure, reliable, and cost-effective way to stay connected. Xeal delivers an entirely self-sufficient smart charging experience for drivers, enabling 100% uptime, 50x faster-processing speed, and a frictionless user experience.

Xeal strongly supports the inclusion and prioritization of infrastructure for multi-family and affordable housing sites, including REACH 2.0 and potential future funding concepts focused on multi-family and affordable housing sites. Providing at-home charging in multi-family housing is critical to accelerating EV adoption and achieving the State's ZEV goals. One of the main hurdles to EV adoption is convenient access to EV chargers, which is lacking at many multi-family sites. According to a 2022 survey by JD Power, 27% of EV buyers who own their home say they are "very likely to consider" an EV, versus only 17% of those who rent. Additionally, 34% of those who indicate they are unlikely to consider purchasing an EV say they lack access to any charging capabilities at home or work. Further, according to the Air Resources Board, upward of 85% of EV charging is estimated to occur at home. As a result, multifamily properties that don't offer EV charging as an amenity for their tenants are presenting a major barrier to EV adoption. Of the 22 million new households expected to form by 2030, 59 percent are projected to be renters and a high percentage are likely to be EV drivers, meaning the need for multi-family charging is paramount. Therefore, we respectfully request additional funding opportunities for Level 2 multi-family charging in the potential future funding concepts.

Within proposed Funding Allocations for Light-Duty Passenger Electric Vehicle Charging Projects, we strongly support prioritizing reliability and uptime to reduce barriers to charging and support EV adoption. A report by Cisco titled "The Hidden Costs of IoT" suggests 95% of non-functional electric vehicle chargers are due to connection to a central server. Moreover, a survey by Plug-in America

discovered that 54% of drivers reported chargers being non-functional for daily use. Taken together, reliable IT infrastructure is the central point of failure for all electric vehicle chargers. Moreover, the US Department of Health and Human Services acknowledged that low-income communities have less access to reliable internet that potentially exacerbates the issue of nonfunctional chargers. We respectfully request additional points or priority for charging infrastructure that can demonstrate 98% or greater uptime and technology advancements to improve reliability.

The goal of smart chargers is to monitor and allow for features like real-time analytics and data, secure payments, access control, user authentication, energy usage, demand response, among others. EV smart charging technology has seen real advancements in the last couple years that have opened up new avenues to provide smart features in more reliable and secure systems. Xeal, for example, has created a communication protocol, Apollo, that provides all the benefits of smart charging without the risk of data security and the unreliable nature of traditional smart charging systems that rely on cellular or Wi-Fi connectivity.

Specifically, Xeal's smart charger hardware is designed to meet the requirements of SB 327 Information privacy: connected devices) and the California Consumer Privacy Act to support consumer privacy and safety. Connectivity between the management environment and the charger hardware (the Apollo protocol) leverages both Public Key Cryptography to protect the payload of remote management network traffic, between a driver's phone and the charger hardware, and TLS 1.2 encryption to further protect traffic at the transport layer, sent across the Internet to Xeal. Xeal's management environment is accessed via a web portal that is hosted in a leading infrastructure-as-a-service environment, by a provider that is ISO27001 and SOC 2 compliant. In addition, Xeal has a dedicated information security team to monitor and respond to malicious activity.

Recognizing the ever-evolving improvements in charging technology, we respectfully request inclusion of this new generation of EV charging infrastructure technology within the REACH 2.0 solicitation to provide accessible and reliable charging infrastructure to give consumers the confidence needed to accelerate the deployment of zero-emission vehicles throughout California and beyond. Specifically, expanding the definition of a networked charger within REACH 2.0 to include "BLE, NFC, ISO 15118 for local network communication within the charger and in conjunction with cellular or Wi-Fi or LORA or ethernet based portable gateways."

Xeal appreciates the opportunity to support and provide input on CEC's Funding Allocations for Light-Duty Passenger Electric Vehicle Charging Projects. We look forward to continuing to work with the CEC and other stakeholders to support the deployment, access, and reliability of light-duty charging infrastructure.

Sincerely,

Michael A. Smith

Michael A. Smith
Head of Deployments and Policy
Xeal Energy