

DOCKETED

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BTC POWER Comments to the CA NEVI Deployment Plan

Additional submitted attachment is included below.

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June 28, 2022

Elissa Konove, Undersecretary
California State Transportation Agency
915 Capitol Mall, Suite 350B
Sacramento, CA 95814

Steven Keck, Acting Director
California Department of Transportation
1120 N Street
Sacramento, CA 95814

Drew Bohan, Executive Director
California Energy Commission
715 P Street
Sacramento, CA 95814

Re: BTC POWER Comments on 22-EVI-03 NEVI Deployment Plan Development

Dear Ms. Konove, Mr. Keck, and Mr. Bohan;

BTC POWER respectfully submits the following comments and suggestions in response to the California Department of Transportation's (Caltrans) and California Energy Commission's (CEC) joint request for feedback on the deployment of EV charging infrastructure (EVSE) under the Infrastructure Investment and Jobs Act's National Electric Vehicle Infrastructure (NEVI) Formula Program. As you finalize the state's NEVI Deployment Plan, we thank you for recognizing this as a critical opportunity to strategically invest the allocated public funds, leverage California's impressive ongoing and planned public and private investments in public EVSE, and drive policies that will spur greater private sector investment and participation in the development of successful, sustainable EV fast charging infrastructure in California as well as the workforce needed to build and maintain this critical infrastructure.

We are highly supportive of the current draft of the Plan and have only a few recommendations that could further support NEVI funding advancing the state's goals and objectives on clean transportation, clean energy, and climate change. When the Plan considers the suggestions we provide, California will be better positioned to expand partnerships with proven EVSE manufacturers and technology providers, existing as well as emerging retail fuel service providers across the state to establish and promote a competitive EV charging market, offer robust growth in alternative fuels, and meet the needs of communities, businesses, and travelers in California.

If investments are made without effort to incentivize and capitalize on existing refueling infrastructure, the Plan could result in less desirable charging station locations, fewer amenities for consumers, and reduced consumer demand interest in the adoption of EVs, which could provide for a less reliable and enjoyable driving experience.

About BTC POWER

Headquartered in Santa Ana, CA, BTC POWER is a leading manufacturer of electric vehicle charging systems in North America. BTC POWER's product portfolio consists of both DC and AC charging systems with power ranges from 6.6kW to 350kW. With over 18,000 charging systems sold worldwide, BTC POWER's DC Fast Chargers and AC Chargers serve charge point operators (EVSPs), convenience stores, retail centers, municipalities and public parks, transit networks, logistics operations, on- and off-

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road fleets, the oil and gas sector, and others for charging electric vehicles and equipment of all types, sizes, and duty cycles.

BTC POWER has a strong manufacturing and service presence in California and is well qualified to help the state achieve its alternative fuel goals. Founded in 1999 to commercialize its proprietary Flat Matrix Transformer (FMTx) technology power supplies and converters for the telecom and internet infrastructure market. The FMTx technology enabled the company to offer the highest current density converters in the market, receiving numerous industry rewards and recognitions. In 2005, BTC POWER turned its power electronics expertise to the design, development, and manufacturing of electric material handling vehicle chargers. In 2011, BTC POWER responded to the newly resurgent electric vehicle market by launching the single and dual port 30 Amp Level 2 AC charging system for workplace and commercial locations. Following up, in late 2013, BTC POWER introduced the ubiquitous 25kW and 50kW dual protocol (CHAdeMO/CCS) DC Fast Charger. Today, the DC product line has increased both in performance and flexibility with modular architecture and power ranges from 25 kW to 500 kW systems delivering up to 1000 Volts DC. Today, BTC POWER manufactures both in California and overseas in Cebu, Philippines. BTC POWER's California manufacturing capabilities are expected to comply with "Buy America" standards established by the Federal Highway Administration ("FHWA") and Federal Transit Administration ("FTA") included under the NEVI Program.

BTC POWER is a proven, long-term partner to California's leading charging station operators and EVSE network developers, including private industry, the California Energy Commission, the Department of General Services, and numerous municipalities and local agencies. For instance, BTC POWER was the preferred provider to many of the projects awarded funding under the CEC's West Coast Electric Highway and East-West Charging Corridors grant programs, providing BTC POWER with the expertise and skills to successfully deploy publicly funded EVSE while accurately adhering to budget, schedules, and reporting requirements. Today, BTC POWER has deployed more than 18,000 AC Level 2 and DC fast charging stations—including more than 4,000 high-power charging stations providing >100 kW charging rate. Cumulatively, BTC POWER's DC fast charging and high-power charging stations (>100 kW) account for some 25% of the North American EVSE market with more than 25 GWh dispensed annually.

BTC POWER is interested in further partnering with California to lower the transportation sector's carbon footprint and increase access to safe, reliable, convenient, and modular public high-power DC fast charging stations. We successfully manufacture the high-power DC fast charging EVSE that motorists want and rely upon. Notably, our newest modular high-power DC EVSE Generation 4 products, will be capable of delivering the charging rates drivers demand today with easy upgradeability to meet the charging demands of future vehicles. We believe that California can be most successful in implementing the NEVI funding program by making the charging experience for electric vehicles seamless, reliable, future-proof, and convenient for drivers, site hosts, and service technicians.

The Role of EVSE Manufacturers in Creating Jobs and Driving Equity

We urge Caltrans and the CEC to consider policies necessary to maintain a sustainable and competitive market for private investment in EV charging infrastructure manufacturing and deployment in California. Promoting projects that prioritize in-state manufacturers, supply chains, and vendors to the greatest extent feasible will be a massive driver of equity and new opportunity in careers throughout clean transportation sector. The state should consider the entirety of project teams—from manufacturers and vendors to designers, installers, and maintenance technicians—when evaluating workforce benefits generated through the investment of the NEVI funds. This is an important consideration in maintaining the long-term success and sustainability of the workforce needed to

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support California's EV infrastructure as we seek to achieve the state's goal of deploying 37,500 DCFC by 2030.

The best way to develop a robust, reliable charging network for all drivers is through the development of localized California manufacturing, service, and workforce development activities. Projects including teams with domestic manufacturing will benefit EVSE deployment and operations with shorter procurement, parts delivery, and repair times while ensuring NEVI investments drive continuous workforce and economic benefits to Californians. BTC POWER's California-based operations and manufacturing, expansive in-house network of California service technicians, and California workforce development efforts can support achieving these objectives and return maximum benefit to California as a partner on the proposed NEVI investments.

In addition to the current resources and infrastructure already in place, BTC POWER is working to expand by 300% in California to support NEVI and other e-Mobility infrastructure needs. We believe the investment in California is required to ensure the reliable experience for California drivers.

Futureproofing by Considering Real Estate Constraints and Modular Upgradeability

We encourage Caltrans and the CEC to prioritize investment in EVSE that maximize energy density—power capacity as compared to total real estate dedicated to the EVSE—both at upon initial deployment and as stations are upgraded to higher power ratings. While the draft Plan calls for substantial investment in rural charging corridors, real estate remains a challenge at many existing facilities that are ideal hosts for DC fast charging. Prioritizing funding for stations that minimize real estate dedicated to charging will increase mobility and operability while providing greater opportunity for future EVSE expansion within a given site. In addition to looking at the square footage dedicated to charging infrastructure—inclusive of stations, power cabinets, concrete pads, and bollards, Caltrans and the CEC should prioritize investment in modular EVSE that can be upgraded to higher power capacities in the future without requiring additional power cabinets or similar infrastructure. This will allow site hosts, EVSE operators, and the state the flexibility to initially deploy EVSE that meets or exceeds the minimum requirements of the NEVI Program while minimizing initial investments and providing the ability to increase charging rates through phased investment without sacrificing additional real estate or requiring duplicative construction.

Establishing Evolving Cybersecurity Requirements to Enable Greater Participation

BTC POWER appreciates the proposed requirement for enhanced cybersecurity capabilities for EVSE hardware and software yet cautions against a requirement for prematurely mandating certain standards, such as OCPP 2.0.1—potentially to the exclusion of innovative deployment models, new industry entrants, and EVSE network developers. As standards, codes, and regulations advance, the CEC should implement them as requirements in the future solicitations only at such time as industry has proven the ability to link front-end and back-end systems adequately to provide a reliable charging experience to drivers. For instance, OCPP 2.0.1 is currently being integrated by some station manufacturers, generally in addition to OCPP 1.6-J, yet has not been adequately implemented and proven by back-end system operators such as third-party maintenance and repair services, EVSPs, and fleet operators. Thus, until there is greater interoperability with OCPP 2.0.1, Caltrans and the CEC should consider making it optional in initial NEVI deployments and require the ability to upgrade all funded stations as the standard advances.

Futureproofing by Considering Synergies with Medium- and Heavy-Duty Truck Fueling

We encourage Caltrans and the CEC to build a Plan that looks toward the future of alternative energy refueling, including the medium- and heavy-duty (MDHD) truck sector. Prioritizing deployments of modular charging infrastructure—that which can be easily upgraded to higher power capacities—for

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light-duty vehicles could provide additional opportunities wherein medium-, and heavy-duty vehicles could leverage investment in EVSE and upstream infrastructure upgrades, reducing the cost and time of deploying these complementary networks which are critical to decarbonizing the transportation sector and achieving the state's climate goals. Additionally, requiring projects to deploy charging stations with ADA-compliant liquid-cooled cables would increase manufacturing demand and expand the supply chain for these systems that will be needed for many high-power charging systems across many medium- and heavy-duty applications.

We applaud Caltrans and the CEC for developing such a comprehensive NEVI Deployment Plan with strong commitments to public engagement, equity, and underserved and rural communities. We appreciate the opportunity to comment on California's critically important NEVI Deployment Plan. We look forward to working with Caltrans and the CEC as they design these programs to facilitate greater investment in EV charging across California. Please contact me at any time if you have questions or if we can assist in any other way to help California achieve the state's sustainability goals.

Sincerely,



Stephen Israel
Sr. Director Product Management



Michael Wagner
Chief Operating Officer