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Comment Received From: EV Charging Access for All Coalition
Submitted On: 7/13/2021
Docket Number: 20-TRAN-04

EV Charging for Residents of Multifamily Housing

Please see attached letter

Additional submitted attachment is included below.


EV Charging Pros


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California Energy Commission
DOCKET@energy.ca.gov

Subject: EV Charging for Residents of Multifamily Housing

Dear California Energy Commission staff,

We are a broad statewide coalition of organizations, companies, and individuals, advocating for better and more equitable access to Electric Vehicle (EV) charging infrastructure in California. Thank you for the opportunity to provide comments on the draft solicitation concepts for Electric Vehicle (EV) infrastructure projects in California, and for focusing in particular on EV charging access for multi-family dwellings (MFD's) and rural communities.

The current deadly heatwave and early wildfire season serve as grim reminders of the accelerating climate crisis. The pandemic has revealed historic racialized inequities, including unacceptable discrepancies in air quality and asthma rates. Yet while EVs provide a low-cost, clean-air transportation solution, California is nowhere near meeting its ambitious EV goals. Residents of MFDs and rural communities have been neglected when it comes to EV infrastructure; public funds should be targeted at rectifying these inequities, and creating models for future public investment.

As a guidepost *for all EV infrastructure projects*, we urge the CEC to enable:

1) ubiquitous EV charging wherever possible,
2) the most charging *spaces per dollar of investment*, and
3) meaningful community-based involvement in every funded project.

Recognizing that all EVs come with on-board chargers and portable cordsets, and that the primary challenge to EV charging is *access to power*, we also urge you to re-word the overall project objective, which currently reads "Successful outreach, installation, and use of chargers." Instead, it should read "Successful outreach, installation, and use of *low-cost charging infrastructure*." Using "chargers" as an eligibility requirement automatically increases the price, limiting the number of low-income people who will benefit from this public spending. Currently, most EV charging happens at home, often using a simple 110v outlet for "Level 1" charging. This is the lowest-cost charging option, and as such it needs to be made available to low-income communities.

We also offer the following recommendations:

- When considering budget allocations, remember that **installation costs depend on use cases, and can vary widely.** The cost to electrify 100 spaces, for instance, could vary from $300,000 on the low end (using an existing panel to power new low-power Level 2 or Level 1 outlets) to $1.5M or higher (bringing in a new electrical panel for full-power Level 2, plus trenching).

- Project team guidelines should **require each team to include community-based groups representing local, low-income and/or People of Color (POC) communities**. City or county government agencies, regional transportation planning organizations, and joint power authorities should NOT count as community-based groups for these purposes.

- As a requirement for low-income/disadvantaged community site participation, please **include protections for tenants**, to ensure the cost of housing is not increased once charging is installed.

- We encourage you to **lower or eliminate match funding requirements --** for low-income and Disadvantaged Communities (DACs); for projects with the lowest-cost per space and highest number of residents served; and for non-profit applicants.

- On the project readiness timeline, we recommend **including time (and support) for community outreach and education.** Recognizing that a site owners' interest doesn't necessarily guarantee interest or understanding from site tenants, successful applicants should include EV education and outreach to residents in their proposals, to ensure maximum adoption. **All funded projects should also include prominent signage indicating access to EV charging.**

- **Include *Experimental Design & Evaluation* as an evaluation criterion for both Multi-Family Housing and Rural Communities projects.** This is particularly important with regard to networking and data collection requirements.

- **Add a 15 point criterion: 'lowest ongoing cost per space served (in aggregate)'. This includes both cost of installation and cost of use. (**Take points from Project Location and Readiness criteria to account for this additional criterion.)

Technical Recommendations:

1. **Remove the requirement that all Level 1 (L1) and Level 2 (L2) chargers must be equipped with SAE standard J1772 connectors.** This adds cost and is unnecessary, as all EV's come with their own L1 cordset, and low cost (~$350) L2 cordsets are readily available. Residents may also wish to provide their own cordset -- to match their personal needs, and because they can take it with them when they change locations. Note that *smart outlets are now available* that permit using personal cordsets while enabling data collection and monetization.
2. **Remove the requirement that all chargers installed must be network capable.** This adds significantly to the cost, lowering the number of people who can access EV driving. Instead, specify what kind of data is important to collect. (For instance, use lessons learned from pilots run by various electric utilities that relied on electric meters for data collection and evaluation.) For revenue collection, a simple monthly fee with parking stickers or hang-tags may be preferable for site hosts. If networking *is* required for data

collection, consider requiring networking in a statistically meaningful sample (10-20%) rather than requiring the entire site to be networked.

3. **Remove DC Fast Charging (DCFC) as an option for multi-family charging.** There is plenty of money being devoted now to extending the DCFC networks. Low-cost ubiquitous at-home charging for multi-family and low-income residents is a gaping hole in California's infrastructure -- this money should be used to address this need.
4. **Do not allow installation of power to "onsite unassigned parking spaces shared across multiple units"** unless it is *ADDITIONAL* to electrifying at least one assigned parking space per unit per project site. (See Space Sharing vs. Power Sharing.)
5. **Recognize that some data collection comes at a price, which may or may not serve the project's priority objectives.** Clarify and focus on the project's objectives in order to make informed trade-offs. (For example, the high cost of bidirectional charging would limit ubiquitous availability.) If data is required, consider alternative, low-cost methods for collecting data.
6. **Require public access to data on the costs of funded projects.** This includes initial costs (such as permitting, electrical work and outlet/EVSE installation) and ongoing costs (including but not limited to networking charges, electricity cost, maintenance, etc.)
7. **Choose projects that include a broad spectrum of use cases**. Possible criteria could include:
    - Construction era (e.g. pre-1960, 1960s-70s, 1980-2000, etc)
    - Amount of power available at the existing panel
    - Location of parking within the building site (i.e. distance from electrical panel, inside vs. outside, etc.)

Rural communities are currently under-served by EV infrastructure, and face many barriers to adoption, so we especially appreciate the CEC targeting EV infrastructure funds to these areas.

Please also consider the following recommendations specifically for rural EV infrastructure:

1. **Require a minimum of Low-power Level 2 and/or low-cost, non-networked full Level 2**, as rural residents often need to drive longer distances with lower-range EVs.

2. **Allow new low-power (Level 1, Low-power Level 2, or Level 2) housing development/workplace installations even if they are within 10 miles of a DCFC station** – especially if they are located in a Disadvantaged Community. DCFC is the highest-cost power, and should not be the only option for low-income rural residents. CEC funds should be used to provide as much low-cost power as possible to these communities.

3. **Prioritize locating projects in "Main Street" sites in small towns,** to support local 'mom and pop' small business establishments and contribute to downtown revitalization efforts.

Thank you very much for the opportunity to provide input.

Sincerely,

Organizations

EV Charging Pros, John Kalb, Founder
Electric Auto Association, Guy Hall, Policy Director
Green Technical Education and Employment, Simeon Gant, Executive Director
Clean Coalition, Rosana Francescato, Communications Director
Appraccel, Justine Burt, Founder + CEO
Récolte Energy, Gopal Shanker,
MacMobile Services , John East, EV Driver
Orange Charger Inc, Nicholas Johnson, Electrical Engineer and CEO Orange
Center for Community Energy, Jose Torre-Bueno, Dr
350 Butte County, Mary Kay Benson
Design one, Ken Mavrick, Manging Director
Resource Renewal Institute, Chance Cutrano, Director of Programs
350 Conejo / San Fernando Valley, Alan Weiner, Climate organizer
ILuvAmp - EVangelist & Consulting, Kirk Nason, Tesla Specialist - Unplugged Performance
Plugzio, Mohammad Akhlaghi, EV Driver since 2018
Sustainable Energy Inc., Mark Roest, Battery & Renewable Energy Entrepreneur
Design AVEnues LLC, Ann Edminster, Petaluma Climate Action Commissioner
Silicon Valley Youth Climate Action, Gary Ding, High School Student
UUCPA Green Sanctuary Committee, Kevin Ma, Chair, UUCPA Green Sanctuary Committee
Acterra: Action for a Healthy Planet, Lauren Weston, Executive Director

Individuals

Stephen Russell, Retired
Patrice Anderson , EV Advocate
Andrea Cassidy, EV Driver since 2012
Vanessa Warheit, EV Driver since 2013
Mahlon Dormon, Wretch
John Holme, Neighbor
Chris Gilbert, Retired Engineer
Eliot Kalman, Musician
Sumeet Batra, EV Driver since 2019
Andrew Reich, EV Driver
janet perlman, physician

Marvin Goodman, Rabbi
Robert Jehle, Retired Engineer
Christopher Reynolds, Retired Engineer
Laurie-Ann Barbour, EV Driver since 2017
Anthony DiSalvo, Senior Systems Engineer
Robert Whitehair, Retired Facilities Director
Pat Lang, Ms.
Frank King, Retired
Dwight MacCurdy, Retired Electric Utility R&D Project Manager
Brennan Balson, EV Driver since 2012
Aaruna Godthi, EV driver
John Higham, Program Manager
Mike Bebb, Retired
Marc Silverman, Mr
Tina Brenza, Dr.
Susan Gjerde , Retired Educator
Hugo Morelli, EV Driver since 2019
Nancy Gatschet, EV Driver
Craig Drizin, EV Driver since 2015
Stuart Williamson, retired teacher
Jeffrey Pickett, EV Driver since 2013
Gene Rubin, ev driver since 2013
William Chapin, EV driver/Engineer
Thomas Graly, Retired Engineer
Nick Peterson, Retired Architect
Janet Parks, EV Driver since 2018
Dency Nelson, EV Driver since 2002
Sally Ahnger, EV Driver since 2002
Peter Cross, Retired engineer
Leane Eberhart, EV Enthusiast
Chase Dixon, Nuclear Submarine Supervisor, New PHEV Driver
Caroline Cabrera, EV owner since 2019
Jillian Van Liew, N/A
Simon Holden, Mr
Donna Isler, EV Driver & Landlord
Roland Saher, EV driver
Joel Leong, Retired Engineer
Bill Hilton, EV Driver since 2017
Bruce Bell, Drive Clean Bay Area
Jose Torre-Bueno, Dr
Howie Schneider, Rabbi
Jaden Foust, EV Driver sincere 2014 and maintenence technician
Peter Avildsen, Citizen
Marsha Jarvis, EV Driver since 2009

Lisa Baker, EV Driver
Ben Zuckerman, EV Driver since 2011
Christine Hoex, Retired Healthcare professional
Conrad Grell, Retired Electrical Engineer
Eric Kelm, EV Driver since 2010
Mike Trivich, Retired electrical engineer
Patrick Reid , EV Driver since 2017
Eswar kumar Reddy, EV Driver
Marc Yelnick, Attorney at Law
Michael Kutilek, Professor Emeritus, SJSU
Candice Kollar, LEED AP, Communications Specialist
John Dymesich, Engineer, EV Driver Since 2012
Joe Siudzinski, Retired engineer
Albert Davis, retired engineer
Caroline Scolari, condominium unit owner/resident
Victoria Dunch, EV Driver since 2015
Becca Schonberg, Berkeley resident
Charles Ih, Prof. of Electrical Engineering, retired.
Patricia Kinney, Retired Software Engineer
Hans Schmid, Retired
Robin Moller, EV driver
Dan Inskeep, EV Driver since 2007
Hildy Meyers, Ms.
John Holme, Neighbor
terr badger, retired engineer
Richard Star, Multiple EV's since 2014
Mary Dateo, EV Driver since 2015
Sara Katz, Happy EV driver since 2013