Re: Electric Vehicle infrastructure, Nonresidential, CALGreen 2022

Dear Mr. Rodriguez

On behalf of the undersigned organizations and individuals, we thank you for the opportunity to comment on proposed changes to Title 24, Part 11 of the 2022 CALGreen Building Code for the 2021 Triennial Code Adoption Cycle. We appreciate efforts by the Building Standards Commission (BSC) and the California Air Resources Board (CARB) to increase electric vehicle (EV) infrastructure in new nonresidential construction, and we encourage you to go even farther, as it is imperative that this code cycle provide access to power for all. As detailed below, this can be achieved in a cost-effective manner by significantly increasing the percentages of spaces served over what is currently proposed, using power management technology. Further, we urge you to include “trigger points” -- events that trigger requirements for new EV infrastructure in existing buildings. Providing access to power in new parking spaces and qualifying existing buildings will improve our chances of meeting California’s air quality and climate goals, and narrow the equity gap for low income and disadvantaged communities. Please see below for details of our cost effective proposal.

We all recognize that we need to promote electric vehicles, as well as reduce vehicle miles traveled, as we transition California away from burning gasoline and diesel. Making electric vehicles and access to charging available to everyone is critically important to achieve this transition in an equitable way. We urge BSC and CARB to work in cooperation with environmental and climate justice organizations, to ensure that the EV infrastructure requirements are implemented in a broad and equitable manner.

Our proposal for new nonresidential construction is taken from the current 2020 EV infrastructure reach code, developed in 2018-20 by two Community Choice energy companies: Peninsula Clean Energy (PCE) and Silicon Valley Clean Energy (SVCE)\(^1\). This code, in part or whole, has already been adopted by ten municipalities across California.

In summary, the PCE/SVCE reach code redefines *EV Ready* to mean “plug and play”: there is a receptacle connected to a complete circuit, plus signage at the parking space indicating that EV charging is available there. It defines *EV Capable* to mean “some assembly required”: there is panel capacity and raceway (but only through “pinch points” such as walls, between floors or when trenching is necessary to reach the parking space), plus signage at the parking space indicating that the space is EV Capable. Further, the reach code splits nonresidential code into office and commercial\(^2\) building types, with differing minimum required percentages of the total

\(^1\) PCE/SVCE based their code in part on reach codes developed and implemented by the cities of San Francisco, Fremont and Oakland in 2017, and Palo Alto in 2013.

\(^2\) Commercial includes retail establishments
parking spaces for electric vehicle supply equipment (EVSE) (a Level 2 charger), EV Ready, and EV Capable, as illustrated below:

<table>
<thead>
<tr>
<th>BUILDING TYPE:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>Commercial</td>
</tr>
<tr>
<td>EVSE:</td>
<td></td>
</tr>
<tr>
<td>10% L2</td>
<td>6% L2</td>
</tr>
<tr>
<td>EV Ready</td>
<td></td>
</tr>
<tr>
<td>10% L1</td>
<td>10%³ L1 OR for &gt;100 spaces, one 80kW DC Fast Charger per 100 spaces</td>
</tr>
<tr>
<td>EV Capable</td>
<td></td>
</tr>
<tr>
<td>30% L1 or L2</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Note, these percentages are additive.*

We support the recommendations for trigger points, requiring new EV infrastructure in existing non-residential buildings, that are laid out in CARB’s report, *EV Charging Infrastructure: Nonresidential Building Standards*⁴. These trigger points are: adding new parking, repaving of existing parking, and building alterations where electrical service is upgraded. Specific requirements depend on the particular trigger; please see the report for further details.

In summary, it is critical to adopt EV infrastructure code that enables access to power because:

- Widespread EV adoption is essential for meeting California’s climate and public health goals.
- Mandating EV signage for Level 1 EV Ready access provides an inexpensive and highly effective means for public EV education, and will help to accelerate widespread EV adoption.
- Mandating EV signage for EV Capable at the parking space alerts drivers of the potential for EV charging. (Keeping that information hidden in the electrical room and on blueprints dramatically lowers the likelihood of fully implementing potential EV infrastructure.)
- California can’t afford to keep building parking that isn’t EV Ready, and we need to future-proof our buildings. Retrofitting even EV Capable buildings is much more difficult and expensive than including EV Ready infrastructure in new construction.
- Mandating plug-and-play “EV access for all” in new construction statewide helps to even the playing field. It provides access to clean transportation more equitably, and reduces the risks of gentrification in certain “EV-forward” communities.

For all the above reasons and more, we must provide *access to power for all* in this forthcoming CALGreen code cycle. Please see attached for details of the cost benefits of our proposal.

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³ PCE/ SVCE reach code proposes 6%, the undersigned have determined that 10% is more appropriate.
Cordially,

ORGANIZATIONS:
Don Anair, Research and Deputy Director, Clean Transportation Program, Union of Concerned Scientists
Simon Mui, Deputy Director, Clean Vehicles & Fuels Group, Natural Resources Defense Council
Daniel Barad, Policy Advocate, Sierra Club California
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John Higham, EV Policy Chair, Electric Auto Association
Katherine Staikynen, Policy Director, Plug In America
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Liore Milgrom-Gartner, Director, CA Interfaith Power & Light
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Elaine Borseth, President, EV Association San Diego, Electric Auto Association
Jane Melia, EV driver since 2012, CEO, Harvest Thermal, Inc.
Woody Hastings, Energy Program Manager, The Climate Center
Jim Stewart, EV Driver, Earth Day Los Angeles
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Jennifer Thompson, Executive Director, Sustainable Silicon Valley
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Barbara Weinstein, PhD, and Prerana Jayakumar, Transition Palo Alto
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INDIVIDUALS:
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Jessica Craven, EV Driver since 2014, member of the LACDP, Energy & Environment subcommittee on the

CADEM Platform Committee
Barbara Quick, Author
Joe Siudzinski, Retired engineer, multiple-EV owner
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Leane Eberhart, Architect
Suds Jain, Santa Clara City Councilmember
Stephen Rosenblum, Retired Chemist
Bruce Naegel, Member, Sustainable Silicon Valley, Carbon Free Mountain View, Carbon Free Silicon Valley
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Sunny Galbraith, Teacher, EV Driver since 2014
Steve Yano, EV Driver
William Robert Shreve, St. Timothy's Episcopal Church Member
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Ambarish Malpani, EV Driver since 2015
Linda Henigin, EV Driver and Teacher
Jonathan Ziegler, EV driver
Jim Stewart, EV Driver since 2018
Rani Fischer, Peninsula Interfaith Climate Action, 350.org, EV driver since 2017
Arthur Keller, EV Driver since 2001, primary author of Palo Alto city infrastructure ordinance
Colby Allerton, EV Driver since 2014
Jennifer Neff, 350 Bay Area, Fremont Resident
Gail Thompson, RN, PICA member
David McCoard
Dr. Janet Perlman, Physician, UCSF
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Morgan Goodwin, EV driver since 2018
Robert Whitehair, Retired Facility Director for Silicon Valley Firms, SSMC
Bill Hilton, Retired, UU Church of Palo Alto
Bruce Karney, Retiree & Environmental Activist
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Hildy Meyers
Judith Borcz, Volunteer
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Alan Solomon, Lead Generation/Sales
Kevin Ma, Santa Clara County Renter
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Sandra Hall, EV Advocate, Davis Electric Vehicle Association & Environmental Council of Sacramento
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Eva Markiewicz, Founding Volunteer of Rewiring America
James Dormon, Engineer
Carol Bardoff
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Ronald W Harness, Engineering Consultant & EV Driver since 2014, Climate Reality Project/Drive Clean Bay Area
Ron Harness, Past President and EV Driver, Rotary Club of Novato
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Quinton Soard, College Student Salisbury University
Debbie M Mendelson, Fossil Free Mid Peninsula
Marvin Goodman, Cong Rabbi, Peninsula Sinai
Myu Campbell, retired engineer
Pat Kinney, Elder, First Presbyterian Church of Palo Alto
Ralph T King, Filmmaker activist, SC-CAN! Silicon Valley Climate Action Now
Ellen Hill, EV driver, Fossil-Free Mid-Pen
Victoria Armigo, EV Driver, Victoria Armigo, EA
Susan Whitford
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Peri Plantenberg, Student at Homestead High; Co-lead, Transit Team, Silicon Valley Youth Climate Action
Allan Grimes
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Virginia Tincher, Volunteer, Citizens Climate Lobby, Acterra, LWVPA
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Robert C Bolles, Retired Computer Scientist
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James Fiske, Engineer
Anne T. Kramer, Sustainability Professional, Nike Inc
Hugh William, MUD Resident and EV charger
Lauren Fraser, Volunteer, Rewiring America
Alexandra Lee
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Alice Sung, Founding Principal, Greenbank Associates
Candice Kollar, LEED AP, Green Building Specialist, Kollar EcoCreative
Virginia Madsen, Retiree and renter who hopes to be an EV driver soon
Stacy Braslau-Schneck, Business Owner
Greg Thomson, Independent
David Ergo, Vice President, Primo Business Works
Rebecca Mathieson
Karen Mendelow Nelson, EV Driver/Climate Reality Leadership Corps EV Squad, Environmental Forum of Marin/Climate Reality Leadership Corps
Laurie-Ann Barbour, The Climate Center, EV Driver since 2017
Ellen Gordon, EV driver since 2016
Mary Dateo, Board Member of Carbon Free Mountain View
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Ms. Bettina Hughes, Biologist/Ecologist
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Cornelia Reynolds, EV Driver since 2017, Elder Climate Action
Adrienne Pierce, EV driver (6+ years) and sustainability advocate
Simone Adams, PPP Community Green Liaison, EV Squad
Carlos Davidson, Pacifica Climate Committee
Martin Kupferman, Retired Entrepreneur
Michael Abramson, MVCSP
Linda LaCount, Las Casitas condo owner, EV Driver for 3 weeks
Ed Stedman
Fred Oliver, Realtor and EV driver since 2013, Electric Auto Assn
Bill and Monique Murphy, Retirees
KO, Bahr Bee Ranch, EV Conversion 2003
Carol Cross, Co-Convenor, Fossil Free Mid-Peninsula
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