



EV Charging for All

The Honorable Gavin Newsom
State Capitol, Suite 1173
Sacramento, CA 95814
Via United States Postal Service and Email: Gavin.Newsom@gov.ca.gov

August 3, 2022

Dear Governor Newsom,

We are the executive leadership team of the EV Charging for All Coalition — a broad coalition representing over 1400 organizations, companies, unions, elected officials, and individuals dedicated to ensuring equitable and ubiquitous access to electric vehicle (EV) charging in California. First and foremost, **thank you**. Thank you for the letter you sent on Friday, July 22 to the California Air Resources Board urging stronger action to decarbonize our state in response to the climate crisis.

In alignment with that ambition, **we urge you to immediately direct your agencies — specifically the Building Standards Commission (BSC) and the Department of Housing and Community Development (HCD) — to adopt a number of common sense updates to the CALGreen building code in the current intervening code cycle. Specifically, CALGreen must ensure that every new multi-family housing unit with parking has equitable access to EV Ready charging at the place where it is most reliable, affordable, safe and convenient: at home.** HCD is about to draft its recommended EV charging requirements for the intervening CALGreen code, so it's vital that staff hear from you soon, preferably by the end of the month. With your clear direction and leadership, we can ensure that CALGreen includes and properly serves all communities.

Attached are the technical recommendations which we submitted to HCD on August 1st. Developed by a team with over 100 years of combined expertise in EV charging, these policy recommendations meet the needs of apartment and condo residents who wish to drive EVs, and simultaneously minimize builder first costs, impacts to the electrical grid, and complexity and costs for property managers and homeowner associations. If implemented in this intervening code cycle, these recommendations will enable EV charging for approximately 45,000 new multifamily housing units over the next 18 months, while saving \$675 million in avoided investor-owned, utility-provided retrofits — for essentially the same up-front costs as the current 2022 CALGreen code.

Further, as you are aware, EVs are California's largest export, amounting to \$5.6B in 2020. This California-grown EV revolution has catalyzed multiple high-value startups including Tesla, Rivian, and Lucid on the vehicle side and ChargePoint, EverCharge, and Volta on the infrastructure side. EV technology is also being transferred to some of the most difficult sectors to decarbonize, for example air transportation and travel with Airflow, ZeroAvia, Joby Aviation and more. And those same batteries, first developed for EVs, are now being used as virtual power plants in the electric sector. Further, these companies have generated many high-road, family-sustaining jobs. Let's not slow down now.

In closing, thank you again for recognizing the urgency of this moment. Please encourage your housing agencies (HCD, BSC) to join this all-of-government approach to extend the immediate benefits of the ZEV transition equitably to all Californians. If California fails to do so, we risk missing your visionary EV adoption targets, allowing structural inequities to persist, and limiting California's economic potential. Equitable ZEV transition means California will continue to set the bar as a true leader and innovator, as we have done on so many other fronts and so many other industry sectors. We are counting on your leadership in deeds as well as words.

On behalf of the EV Charging for All Coalition Leadership Team, thank you for your attention to this important matter.

Sincerely,

Dennis Corelis, California Deputy State Architect (retired)
Allis Druffel, Southern CA Director, California Interfaith Power & Light
Marc Geller, Co-Founder and Vice President, Plug In America
Guy Hall, Director and Policy Committee Chair, Electric Vehicle Association
Linda Hutchins-Knowles, E-Mobility and Advocacy Senior Manager, Acterra
Jared Johnson, Policy and External Relations Senior Manager, Acterra
Dwight MacCurdy, EV Project Manager, SMUD (retired)
Michelle Pierce, Founder and Managing Director, EV Nirvana
Birgitte Rasine, Chief Evolution Officer, LUCITA, Inc.
Sven Thesen, EV Consultant, Sven Thesen & Associates
Vanessa Warheit, Sr. Program Advisor, Plug In America

Attachment: SUMMARY OF PROPOSED CALGREEN CODE REQUIREMENTS FOR ELECTRIC VEHICLE CHARGING INFRASTRUCTURE FROM THE EV CHARGING FOR ALL COALITION, AUGUST 1st, 2022

CC (via email):

Analisa.Bevan@arb.ca.gov
adrienne.harris@arb.ca.gov
Andrew.Martinez@arb.ca.gov
Kathy.Jaw@arb.ca.gov
Sam.Lerman@arb.ca.gov
lauren.sanchez@gov.ca.gov
Mona.Badie@energy.ca.gov
danuta.drozdowicz@energy.ca.gov
hannon.rasool@energy.ca.gov
Larry.Rillera@energy.ca.gov
Sharon.Purewal@energy.ca.gov
will.vicent@energy.ca.gov
Peter.Strait@energy.ca.gov
jennifer.kalafut@cpuc.ca.gov
sara.kamins@cpuc.ca.gov
Ed.Pike@cpuc.ca.gov
Abhilasha.Wadhwa@cpuc.ca.gov
Audrey.Neuman@cpuc.ca.gov
Nick.Zanjani@cpuc.ca.gov
Rory.Cox@cpuc.ca.gov
cbsc@dgs.ca.gov
Enrique.Rodriguez@dgs.ca.gov
Mia.Marvelli@dgs.ca.gov
Hannah.Goldsmith@gobiz.ca.gov
tyson.eckerle@gobiz.ca.gov
Heather.Hickerson@gobiz.ca.gov
gia.vacin@gobiz.ca.gov
harmony.bulloch@gobiz.ca.gov
Emily.Withers@hcd.ca.gov
Jenna.Kline@hcd.ca.gov
Kyle.Krause@hcd.ca.gov
Randall.Enrico@hcd.ca.gov
Thomas.g.Martin@hcd.ca.gov
Mitchel.Baker@hcd.ca.gov
mark.tollefson@gov.ca.gov
jason.elliott@gov.ca.gov
scott.morgan@opr.ca.gov
Karen.Douglas@gov.ca.gov

ATTACHMENT

SUMMARY OF PROPOSED CALGREEN CODE REQUIREMENTS FOR ELECTRIC VEHICLE CHARGING INFRASTRUCTURE FROM THE EV CHARGING FOR ALL COALITION

Updated August 1, 2022

In September of 2020, California Governor Gavin Newsom, via [Executive Order N-70-20](#), articulated a bold and clear goal: to drive a rapid conversion of the state's vehicles from fossil-fuel powered to zero emissions by requiring that ***all new light-duty cars and trucks sold in the state by 2035 be zero emission vehicles***. Achieving this goal is essential to reduce air pollution (and its negative health consequences including premature death) and to mitigate climate change.

To achieve this vital goal, the state must ensure access to affordable EV charging for all residents, not just those who live in single-family homes. Access to electricity at utility rates at long dwell-time home and work locations provides the most cost-effective and equitable way to charge electric vehicles (EVs). Without access to charging at home or at work, residents are much less likely to adopt EVs.

Since its formation in 2020, the EV Charging for All Coalition has worked with experts and stakeholders to develop model codes for EV charging infrastructure in multi-family housing and the workplace that accomplish **two primary goals**:

- 1) **Maximize access** to EV Ready (plug-and-play) charging for residents of multi-family housing (not just "EV Capable" make-ready which requires additional costly and time-consuming electrical work); and
- 2) **Minimize cost** and complexity for residents, builders, and managers.

This model code described below for Multi-Family Housing (for new construction and for additions or alterations) achieves four key objectives:

- 1) It simplifies the CALGreen Code requirement—which currently includes a complicated mix of three differing levels of charging access—while ensuring equitable access for residents.
- 2) It provides adequate time to recharge EVs sufficiently overnight without an excessive demand for power for the new building and without stressing the electrical grid.
- 3) It allows drivers of EVs in Multi-family Housing, like their counterparts in single-family housing, access to low-cost utility electric rates for EV charging (without additional charges).

Our Model Code for Multi-Family Housing, New Construction, and Rationale:

1. **Every new multi-family housing unit that has access to parking (not every parking space) must have access to at least one EV Ready parking space.**

Rationale: This ensures that all residents with access to parking are empowered to have an EV since they have access to at-home EV Ready charging—and it also saves builders money by not requiring every parking space to be electrified. Households with more than one EV can rotate charging them at their EV Ready parking space.

2. **This charging must, at a minimum, be Low-Power Level 2 (208/240volts, 20amps), terminating in a receptacle or EVSE.**

Rationale: This level of power provides adequate time overnight to recharge EVs sufficiently to meet the vast majority of drivers' daily commute needs, without stressing the electrical grid. This, plus the option of forgoing EVSE, also reduces cost for builders.

3. **There must be highly-visible “EV Ready” signage at each EV Ready parking space.**

Rationale: This ensures that residents are aware that they already have access to at-home EV Ready charging, spurring adoption of EVs.

4. **The design of the infrastructure should prioritize providing residents with access to the lowest-possible electricity cost for charging, via their utility's rates.** In most cases, this can be accomplished by **wiring each EV Ready space's electrical receptacle to the corresponding unit's meter.** If this is not practical in certain types of buildings, alternate ways to provide low-cost electrical power for residents should be implemented.

Rationale: Since new construction is built from scratch, it can be configured to make this solution cost effective for the builder, thus avoiding the need for third party charging systems that impose add-on fees to residents and may make them captive to a specific provider without competitive alternatives. Wiring directly to each unit's meter also minimizes complexity and responsibility for apartment managers and HOA Boards.

Our Suggestions for Multi-Family Housing Code for Additions or Alterations, and Rationale:

The 2022 CALGreen code language for additions and alterations, while moving in the right direction, is both overly broad in some places and too narrow in others. We suggest, at a minimum, the following code updates:

- 1) **Convert the Level 2, 40 ampere EV Capable requirement to low power Level 2, 20 ampere EV Ready.**

Rationale: This will avoid the expense and inconvenience to residents and/or Home Owners' Associations / Apartment Management in converting from EV Capable to EV Ready, without adding cost for the builder.

- 2) **Remove triggers that require upgrading to the above noted low power EV Ready charging for energy-efficiency upgrades, such as LED conversion projects.**

Rationale: This will avoid inadvertently disincentivizing energy efficiency upgrades, particularly in low income housing.

- 3) **Require a higher percentage of low power EV Ready parking spaces (at least double the current 10%) for required upgrades.**

Rationale: This will ensure the maximum number of units have access to EV Ready charging at an incremental increase in cost to the current requirement.

- 4) **Include requirements for the installation of EV Ready spaces during additions or alterations that do not directly impact parking lots or electrical systems. One option is to use a percentage (for example 5%) of the cost of the additions or alteration as a minimum that must be spent on low power EV Ready infrastructure.**

Rationale: This aligns CALGreen EV infrastructure additions and alterations with current building codes which require compliance with new construction requirements. The most cost-effective time to install EV infrastructure is during new construction; the second most cost-effective time is in conjunction with additions and alterations, so the code should leverage this opportunity.

Conclusion

The good news is—for approximately the same cost as the requirements of the 2022 CALGreen code update—our model code provides EV Ready access for each new multi-family unit with parking. This is much more equitable than providing such access to only 30% of parking spaces. In addition, installing EV charging at the time of construction costs far less than retrofitting later, and in the process stimulates new family-sustaining jobs in both the building trades and automotive industries. Finally, our model code for alterations and additions incentivizes more EV charging without disincentivizing energy efficiency upgrades.