

February 20, 2024

Chair Liane Randolph and
Members of the Board
California Air Resources Board
1101 I Street
Sacramento, CA 95814

Re: Proposed Low Carbon Fuel Standard Amendments To Improve Support For EV Charger
Access at Multi-Family Residences

Dear Chair Randolph,

In accordance with the Notice of Public Hearing to Consider Proposed Low Carbon Fuel Standard Amendments dated January 2, 2024, Ava Community Energy (Ava) and Peninsula Clean Energy Authority (PCE) (collectively, the “Joint CCAs”) submit the following comments and recommendations to the California Air Resources Board (CARB).

The Joint CCAs were encouraged to learn that CARB intends to provide more robust support for EV charging at multi-family residences (MFRs). The Staff Report: Initial Statement of Reasons (ISOR) proposed that CARB reclassify MFR EV charging as non-residential. This reclassification, in theory, is consistent with post-workshop comments submitted by CCAs during the public engagement phase of the rulemaking.¹ However, the proposed amendments to the LCFS Regulation (“Amended Regulation”) are limited in nature and do not go far enough to encourage robust EV infrastructure development at MFR in California.

As default Load Serving Entities (LSE) in our respective service territories and local public agencies, the Joint CCAs are tasked with reducing GHG emissions associated with the electricity we provide to the communities we serve. The Joint CCAs’ mandate to advance climate action also lends itself to a shared transportation electrification (TE) philosophy that centers around

¹ Joint CCAs, “Comments of the Joint CCAs on Potential Future Changes to the LCFS Program,” January 7, 2022, <https://www.arb.ca.gov/lists/com-attach/110-lcfs-wkshp-dec21-ws-UjFSO1Q4VmhXNFU7.pdf>; Joint CCAs, “Post-workshop Comments of the Joint CCAs on Potential Changes to the LCFS Program,” August 8, 2022, <https://www.arb.ca.gov/lists/com-attach/91-lcfs-wkshp-jul22-ws-AHAAaVIgACcAKwdw.pdf>.

broad access to TE solutions, especially for those facing significant barriers to adoption, by minimizing the cost to adopt TE technologies.

PCE's EV Ready program is a \$28 million infrastructure program that offers free, no obligation technical assistance for PCE customers, \$24M+ in project incentives, access to preferred pricing on EV chargers, and a trained Trade Ally network of contractors.² The program provides support for the design of an EV charging project from inception through installation. EV Ready also has a particular focus on supporting MF residents. Of the 1,000 charge ports installed so far, roughly 2/3 of these are in apartment buildings or condos. And another 3,000 are in process.³

Despite the CCAs' efforts, as well as incentives and programs offered by various other actors such as the EDUs, and agencies at the state, regional, and local level, California is not on track to hit our EV targets. And in Q4 2023, EV sales growth in California dipped for the first time in several years, challenging the assumption that consumer acceptance and continued growth of the EV market is a given.⁴

According to the California Energy Commission (CEC), "As of mid-2023, California has installed more than 91,000 public and shared chargers, including nearly 10,000 direct current fast chargers."⁵ A recent analysis by the CEC identifies a need for aggressive new development of Level 1 and Level 2 MFR chargers in order to meet California's EV goals. Their recent *Assembly Bill 2127 Second Electric Vehicle Charging Infrastructure Assessment* "projects 1.01 million public and shared private chargers are needed to support 7.1 million passenger plug-in electric vehicles in 2030, and 2.11 million public and shared private chargers are needed to support 15.2 million passenger plug-in electric vehicles in 2035."⁶ The CEC modeled the combined number of Level 1 and Level 2 MFR chargers needed to meet these goals and their findings are stark. They

² "EV Ready Incentives." Peninsula Clean Energy. <https://www.peninsulacleanenergy.com/ev-ready-incentives/>.

³ Angueira, Gabriela Aoun. "Why the Slowest EV Chargers May Be the Fastest Way to Get People into Evs." Grist, January 30, 2024. <https://grist.org/transportation/why-the-slowest-ev-chargers-may-be-the-fastest-way-to-get-people-into-evs/>.

⁴ Mitchell, Russ. "California EV Sales Are Falling. Is It Just Temporary, or a Threat to State Climate Goals?" Los Angeles Times, February 15, 2024. <https://www.latimes.com/environment/story/2024-02-15/falling-ev-sales-raise-worries-over-california-climate-plan>.

⁵ California Energy Commission. "Electric Vehicle Charging Infrastructure Assessment - AB 2127." Accessed February 15, 2024. <https://www.energy.ca.gov/data-reports/reports/electric-vehicle-charging-infrastructure-assessment-ab-2127>.

⁶ *Ibid.*

estimate that California will need 313,000 new MFR chargers in MFR by 2030, and 264,000 more by 2035, for a total of 577,000 multi-family chargers.⁷ This is or roughly equal to a rate of 24,000 MFR charger installations a year, every year through 2035. And according to CEC’s assessment, the number of new MFR chargers needed to meet California’s EV goals is larger than almost any other use case.⁸

CARB’s LCFS Rulemaking presents a timely opportunity to modify an existing program to better address a growing need identified by its sister agency. The LCFS, if amended appropriately, could provide strong support for MFR EV adoption. It has the prospect of encouraging MF infrastructure development to maximize charging access for residents. It can also help alleviate cost concerns as EV fueling savings are continually eroded by increasing electric rates. As written, the Amended Regulations do not go far enough. The CCAs provide the following recommendations.

1. The Amended Regulation should be further modified to classify all multi-family EV charging as "non-residential" to provide the strongest incentive to develop EV charging access at multi-family residences;
2. The registration process for EV Fuel Supply Equipment (“FSE”) should be updated to allow low-cost smart Level 1 and Level 2 EV charging outlets to generate LCFS credits; and
3. The LCFS should require that credit claimed from MF EV charging should be used to lower the cost of driving for those drivers and counter cost pressures from rising electricity rates.

⁷ Davis, Adam, Tiffany Hoang, Thanh Lopez, Jeffrey Lu, Taylor Nguyen, Bob Nolty, Larry Rillera, Dustin Schell, Micah Wofford. 2023. Assembly Bill 2127 Second Electric Vehicle Charging Infrastructure Assessment: Assessing Charging Needs to Support Zero-Emission Vehicles in 2030 and 2035. *Figure 1 - Chargers Needed for Light-Duty Plug-In Electric Vehicles in 2030 and 2035*. Page 4. California Energy Commission. Publication Number: CEC-600-2024-00, available at: <https://www.energy.ca.gov/publications/2024/assembly-bill-2127-second-electric-vehicle-charging-infrastructure-assessment>.

⁸ The Report forecasts that the need for Multi-Family (L1 + L2) chargers is greater than all 5 of the use case categories analyzed, except for Shared Private Workplace. Shared Private Workplace charger installation need is less than 2% higher than Multi-Family (L1 + L2). The Report forecasts that California must install the following numbers of new chargers by use case in order to meet the goal of supporting 15.2 million plug-in electric vehicles by 2035 (in descending order): Shared Private (at work) – 587,000; Multi-family (L1 + L2) – 577,000; Public (at work) – 392,000; Other Public – 475,000; DCFC – 83,000. Page 4.

1. Classifying All Multi-Family EV Charging As Non-Residential Will Make The LCFS Program More Equitable And Provide the Strongest Incentive To Develop EV Charging That Benefits Californians Living In Multi-Family Residences

As the Joint CCAs have argued in prior comments to the CARB, classifying MFR EV charging as residential under the LCFS rules, and subjecting it to the associated data reporting and registration requirements, effectively prevents entities from claiming credits generated by MFR EV charging, which in turn prevents the LCFS from being fully leveraged to support MFR EV infrastructure development.⁹ Therefore the Joint CCAs were encouraged when reviewing the ISOR as it suggested that the Amended Regulation would address this issue. The ISOR includes a table which serves as a summary of the proposed amendments in the Amended Regulation. In that Table, there is a statement the Amended Regulation will “Include Multi-Family residences as non-residential.”¹⁰ However, when reading the draft language, the change is far more limited and in effect is inconsistent with the stated rationale behind the change: to provide a strong incentive to develop more MFR EV charging infrastructure.

The reason the Amended Regulation falls short is because it fails to recognize that MFR charging at assigned parking spaces needs to be a central part of the solution and incentivized by the LCFS. According to the Amended Regulation, the only charging at MFR that will be classified as non-residential under Sections 95483(c)(1) and 95483(c)(2) is charging in shared parking spaces. Shared EV charging is suboptimal due to several practical operational, project design, and cost barriers that cannot be overcome by simply increasing LCFS incentives. As such, it will not provide meaningful support to install the number of MFR chargers the CEC forecasts that California needs. Instead, the Amended Regulation’s MFR reclassification does not do enough to support MFR EV charging projects designed to maximize charging access to MF residents. To achieve this, the final Amended Regulation should classify all MFR EV charging as non-residential to ensure that the LCFS Program provides the strongest support possible to expand EV adoption among California’s MFR communities.

Appendix E of the ISOR speaks to the purpose and rationale behind the proposed language in the Amended Regulation. Staff reasoned that “chargers at multi-family residences

⁹ Joint CCAs, *supra* note 1.

¹⁰ California Air Resources Board, “Staff Report: Initial Statement of Reasons,” *Table 2: Summary of Proposed Regulatory Amendments to the LCFS Regulation*, December 19, 2023, page 20, <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/lcfs2024/isor.pdf>

(MFR) should generate LCFS credits as nonresidential charging in order to more strongly incentivize the development of and availability of charging at MFRs.”¹¹ Appendix E continues, “[t]his change will allow EV supply equipment owners and developers to generate credits from deployment at multi-family residences, which has been identified as a sector requiring further investment.”¹² Appendix E also correctly identify that the issue presented by classifying MFR charging as residential is that it designates crediting for residential charging to the Electric Distribution Utilities (EDUs) instead of EV service providers (EVSPs), meaning that currently, “the latter may not have as strong and direct an incentive to develop more EV supply equipment at MFRs *as could be most optimal and impactful*” (emphasis added).¹³

However, the Amended Regulation only provides a “strong and direct incentive” for developing MFR EV supply equipment that is installed in a manner that is both not optimal for encouraging MFR residents to adopt EVs, or optimal for the MFR property owners. As a result, the Amended Regulation’s support for EV supply equipment at MFRs is not the most impactful. Programs like PCE’s EV Ready emphasize project designs that encourage as many charging ports as possible, most of which are installed in reserved tenant parking, while limiting the need for grid or service upgrades. This design philosophy of “right-sizing” the project to suit charging needs and capacity constraints has several key advantages. It allows the MFR charging project to maximize charging access to provide the greatest incentive to consider purchasing or leasing an EV. Current and prospective tenants are given certainty they will always have charging access at home if they choose to purchase or lease an EV, a powerful motivator to adopt an EV as it is estimated that 80% of charging takes place at home. But projects that follow this design philosophy to maximize charging access will remain ineligible to claim LCFS credits under the Amended Regulation.

Right-sizing also addresses several typical concerns of MFR property owners considering an EV charging project for their tenants. One is that EV charging will require time-consuming and expensive grid studies and upgrades, or costly panel work. But right-sizing the project allows

¹¹ ISOR, Appendix E: Purpose and Rationale of Proposed Amendments for the Low Carbon Fuel Standard Requirements, *Amendments to Sections 95483(c)(1) and 95483(c)(2). Fuel Reporting Entities for Residential Electrical Vehicle Charging*, January 2, 2024, page 16, available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/lcfs2024/lcfs_appe.pdf

¹² *Ibid.*

¹³ *Ibid.*

property owners to offer EV charging access to as many current and future tenants as possible while avoiding these pitfalls. And as MFR charging often occurs in parking lots and garages available to all the MF tenants, rather than near the existing individual tenants' utility meters, it is often the most cost-effective approach to install the electrical work so that the new EV load is served under a common meter and the usage is billed by the LSE directly to the property owner, not the individual tenants. This design approach allows the property owner to preserve their flexibility to reassign parking spaces to tenants as needed. Conversely, reassigning limited shared parking spaces, like guest parking, to limit it to only EV charging can be a point of friction between tenants and a property owner, especially for those tenants who do not drive an EV. Installing EV charging in shared parking spaces also creates friction opportunities between residents such as disagreements over the use of the equipment, moving vehicles to make sure that everyone who needs to charge their vehicle can, and so forth. The installation of EV charging in shared parking also triggers ADA requirements that can lead to significant delays and cost increases for the project. These are the costs and types of issues property owners simply don't want to deal with and could lead them to install a limited number of chargers that would provide limited incentive for tenants, or turn them off from pursuing an EV charging project entirely. But many of these issues are avoided if each tenant has their own charging port in their assigned parking space. But the Amended Regulation only "strongly incentivizes the development of and the availability of charging at MFRs" if the property owner decides to pursue an EV charging project that will serve fewer tenants, is more likely to cause operational headaches, and will cost more per charging port. Therefore, the Amended Regulation should reclassify all MFR charging as non-residential to in order to strongly incentivize EVSPs to design MFR charging projects that maximize charging access for tenants and keep project costs down.

The ISOR makes it clear that the intention is to amend the LCFS to incentivize the development and availability of charging at MFRs. However, the draft Amended Regulation, by reclassifying EV charging as non-residential only if it is located in shared parking, will only provide incentives for MFR charging projects that are more costly, more time consuming to complete, and provide a weaker overall incentive for tenants to adopt purchase or lease an EV. If CARB's true intention is to provide a "strong and direct an incentive to develop more EV supply equipment at MFRs *as could be most optimal and impactful* [emphasis added]", then the Joint CCAs propose that the final Amended Regulation must reclassify all EV charging at MFR as

non-residential. If it does not, CARB will miss an opportunity to adopt truly impactful the amendments to the LCFS program that would support level of MFR charging development that California needs to meet its EV goals.

2. Low-cost EV charging equipment should be permitted to register as Fuel Supply Equipment to generate non-residential LCFS credits

Another simple change to the LCFS regulations that the ARB should adopt to promote equitable benefit among MFR EV drivers is to allow smart Level 1 and Level 2 outlets to be registered as non-residential FSE and generate credits. There are many examples of this type of EV charging equipment on the market today that provide low-cost charging equipment options compared to standard L2 EVSE.¹⁴ These smart outlets are also still networked, allowing the equipment to collect the data fuel reporting entities need to claim LCFS credits. Permitting these charging ports to register as FSE would also provide a strong incentive for MFR property owners to pursue EV charging projects that maximize charging access for residents while minimizing the cost of the project and the per port cost.

PCE's EV Ready program has designed 200 EV charging projects, many with smart Level 1 and Level 2 outlets for several reasons. A primary reason is that the number of MFR charging ports needed is so large that it cannot be met only with traditional Level 2 EVSE. Smart Level 1 and Level 2 outlets are a much more cost-effective and widely scalable solution. In order to provide enough charging to encourage the significant community of Californians living in MFRs to consider adopting EV technology, PCE realized designed the EV Ready guidelines to: (1) provide as much charging as possible at people's residences, particularly at their assigned parking spaces (2) provide enough charging capacity to meet their typical driving needs, and (3) avoid costly service upgrades. PCE discovered that, per day, most drivers across the state drive about 40 miles and leave their cars parked for almost 12 hours. And those EV drivers that were using Level 2 charging would leave their cars plugged in all night but only draw electricity for less than three hours. So, while Level 2 charging is still appropriate for many use cases, it is an overbuilt solution considering the low daily miles and the long dwell times, such as at MFRs. Instead, L1 and low-power L2 ports allowed PCE to design MFR projects that are much less

¹⁴ See GoPowerEV, <https://gopowerev.com/>; Orange Charger, <https://www.orangecharger.com/>; Pando Electric, <https://www.pandoelectric.com/>; Plugzio, <https://www.plugzio.com/>.

likely to trigger service upgrades or utility studies, provide more charging ports for lower cost, and still provide enough charging power to meet the daily driving needs of residents.

Unfortunately, current registration restrictions do not allow owners of EV charging equipment to register smart Level 1 and Level 2 ports as non-residential EV FSE.¹⁵ Therefore projects that utilize these EV charging options to limit project costs are unable to generate LCFS credits and leverage the program to further expand EV charging access. This highlights a disconnect between the charging options the LCFS incentivizes vs charging options available on the market that appeal to property owners for reasons of operational simplicity and lower project cost. The Joint CCAs encourage CARB to permit smart Level 1 and Level 2 ports to register as non-residential FSE to incentivize the charging options on the market today that are best positioned to encourage EV adoption among MFR communities.

3. The LCFS should require that credit claimed from MFR EV charging should be used to lower the cost of driving for those drivers to counter increasing electric rates and maintain EV cost savings.

EVs are assumed to offer a cost savings for the driver compared to an internal combustion engine (ICE) vehicle as they have lower maintenance costs and typically lower fueling costs. But as electric rates continue to rise, EVs' value proposition will continue to erode. Depending on a given ICE vehicle's fuel efficiency, there may be little or even no operational cost savings to be gained by switching to an EV. But to meet California's ZEV and climate goals, the rate of EV adoption must increase. This is especially true among MF residents who have typically faced more significant barriers to EV adoption.¹⁶ And once they do have an EV, MF drivers also often face higher charging rates compared to SFH drivers, meaning that the value proposition was already less attractive. MFR charging on networked equipment typically includes additional fees, fees that SFH EV drivers do not have to pay to use a charger in their

¹⁵ LCFS Guidance 19-04: Fueling Supply Equipment Registration. See section 4, *Non-residential EV Charging* which specifies that only Level 2 chargers with attached SAE J1772 plugs can be registered. (September 2022), available at: https://ww2.arb.ca.gov/sites/default/files/2022-09/lcfsguidance_19-04_093022.pdf

¹⁶ Hsu, Chih-Wei and Fingerma, Kevin, "Public Electric Vehicle Charger Access Disparities Across Race and Income in California" *Transport Policy*, Vol. 100 at 59-67 (Jan. 2021), available at: <https://www.sciencedirect.com/science/article/pii/S0967070X20309021>.

home. It is important that the value proposition is not eroded further to ensure that MF residents who adopt EV technology can continue to save money on their transportation costs.

The Joint CCAs propose that the LCFS should require that the credit entities claim from MFR EV charging projects should be allocated, at least in part, back to the EV drivers to reduce the cost of fueling. As all LCFS-eligible FSE are networked, this could be implemented by charging providers by simply crediting the accounts of drivers who live in one of the provider's MFR projects. The Joint CCAs also want to emphasize that any change to this effect must strike a balance between returning LCFS credit to EV drivers and allowing providers to retain enough of the credit to incentivize them to continue to develop MFR EV projects.

4. Conclusion

As noted above, the Joint CCAs fully support the goals and objectives of the LCFS program to reduce the carbon content of the transportation fuels in California. The Joint CCA request that CARB reclassify all MFR charging as “non-residential” will encourage more equitable deployment of EV chargers where MF residents live which will provide a strong incentive for residents to consider purchasing or leasing an EV. CARB should also permit networked Level 1 and Level 2 charging ports to register as EV as they provide a lower-cost option for MF property owners to provide charging to their tenants. The Joint CCAs also encourage CARB to require that entities who claim credits from MFR charging use a portion of that credit to reduce the residents' fueling costs to counter the impact of rising electricity rates. The Joint CCAs thank the ARB for taking the time to consider its recommendations and look forward to continuing to work together to advance ZEV adoption among Californians.

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