DOCKETED	
Docket Number:	25-ALT-01
Project Title:	2025–2026 Investment Plan Update for the Clean Transportation Program
TN #:	263097
Document Title:	Dwight MacCurdy Comments - Observations and Recommendations on the 2025-2026 Clean Transportation Program Investment Plan
Description:	N/A
Filer:	System
Organization:	Dwight MacCurdy
Submitter Role:	Public
Submission Date:	5/14/2025 5:11:51 PM
Docketed Date:	5/15/2025

Comment Received From: Dwight MacCurdy Submitted On: 5/14/2025 Docket Number: 25-ALT-01

Observations and Recommendations on the 2025-2026 Clean Transportation Program Investment Plan

The National Charging Access Coalition (NCAC) wishes to thank you for accepting comments in response to the April 30th Clean Transportation Advisory Committee (CTAC) meeting, regarding CEC's 2025–2026 Investment Plan Update for the Clean Transportation Program. See 2 attachments, one in Word and one in pdf format.

Additional submitted attachment is included below.

National Charging Access Coalition

www.chargingaccess.org

Commissioner Nancy Skinner and Staff California Energy Commission

May 14, 2025

Dear Commissioner Skinner and CEC Staff:

The National Charging Access Coalition (NCAC) wishes to thank you for accepting comments in response to the April 30th Clean Transportation Advisory Committee (CTAC) meeting, regarding CEC's 2025–2026 Investment Plan Update for the Clean Transportation Program.

By way of introduction, the National Charging Access Coalition (NCAC) is a nonprofit whose mission is to accelerate ubiquitous, safe, affordable and reliable access to electrical power for charging all types of personal vehicles, at home and at work. NCAC is led by a group of experts in the EV field who have decades of experience with EVs and EV infrastructure. The NCAC leadership team (most of whom formerly served on the leadership team of the EV Charging for All Coalition) played a major role in the most recent round of the CALGreen EV code by successfully encouraging Housing and Community Development (HCD) and the Building Standards Commission to require EV charging for 100% of new multifamily home (MFH) units with parking.

NCAC recognizes and supports the goal of spending at least 50% of the funding in Disadvantaged Community (DAC) areas, and we support all five proposed guiding principles and directions in the updated 2025-2026 investment plan. We remain concerned, however, that the guiding principles still don't adequately address inequities in access to private home- and workplace-charging, and for public DC Fast Charging, particularly for low-income communities.

We offer the following observations and recommendations.

OBSERVATIONS

A) Direct Current Fast Charging (DCFC) is typically the most expensive type of charging both to install and to use. It is also harder on batteries (particularly for older model EVs), potentially reducing the value of the EV; and while it's more convenient than public L2, it's far less convenient than home charging.

- B) It is therefore critical to simultaneously support long dwell time homebased lower-powered charging, and inexpensive lower-powered workplace charging with priority for employees, and to ensure that DCFC costs to the end user are kept low – especially while DCFC is still a primary source of EV charging for multifamily housing (MFH) residents.
- C) If charging at public DCFC stations is too expensive, the addition of more charging stations may not be as successful as hoped.

As mentioned at the April 30th CTAC meeting, a recent policy brief published by the Institute of Transportation Studies, titled "Multifamily Households Across California are Paying a Lot More to Charge their Electric Vehicle,"¹ examines the affordability issue. Key findings include:

- "The cost of charging at a public DCFC station can be **up to 6 times more** than charging at a single-family home."
- "Some multifamily housing (MFH) residents may pay upwards of **\$2,000 more per year** to charge their EV compared to their single-family housing (SFH) counterparts."

Key policy recommendations from this policy brief include:

- Allow MFH residents to charge at their local public DCFC at the lower-cost, off-peak, residential utility EV rate.
- In coordination with the local utility, allow qualified low-income CARE and FERA recipients to pay the same rate for charging at public DCFCs as the reduced rate they pay at home.
- Consider employing multiple pricing options at public DCFC stations, such that qualified MFH residents pay a lower cost, while other user groups may pay higher rates.
- Explore and offer creative solutions for adding low-cost, home-based EV charging rates at MFH sites, such as may be possible with submetering at EV charging spaces, or flexible and changeable wiring configurations that allow circuits to be reassigned to different charging spaces, and direct wiring from the charging space to the MFH resident's electrical panel.

A recent study by Next 10 and the U.C. Davis Electric Vehicle Research Center made the following observations:²

¹ <u>https://escholarship.org/uc/item/9dn2j441</u>, September 2024, Diya Kandhra and Dwight MacCurdy for the EV Charging for All Coalition, and Timothy Lipman, Ph.D, for the Transportation Sustainability Research Center at U.C. Berkeley.

² <u>https://www.next10.org/sites/default/files/2024-</u> 09/Next%2010%20UC%20Davis%20Report%20Press%20Release%20Final.pdf#:~:text=Whether%20it%E2%80

- While the demand for public charging is strong, the report survey reiterates the importance of home charging, finding that—without access to home charging—35% of EV owners would replace their EV with a traditional gas car, while 38% and 41% would replace their EV with a plug-in EV or a hybrid, respectively.
- 84% of California EV drivers are worried about the lack of charging options outside their homes.
- 70% of California EV drivers surveyed reported having used public charging stations.
- 66% of California EV drivers said they were concerned about the cost of publicly available chargers.
- 84% of California EV drivers are worried that public chargers would take them too far out of their way.

RECOMMENDATIONS

NCAC therefore makes the following suggestions and recommends that specific funding by the CEC focus on residents of MFH who do not have EV charging at home:

- 1. Implement several different pricing approaches to test effectiveness of EV adoption by residents of MFH. One approach would be to implement a pilot program with a reduced price for new EV drivers (not for existing EV drivers) for a limited period of time, perhaps as long as 60 months (or same as an EV lease or finance period), rather than for an ongoing period with no stopping point. This limited but practical approach of reducing risk and cost may help the EV curious take the leap and lease or buy a used or new EV with the opportunity to charge at DCFC stations at the reduced cost. It would also be good to test other approaches that offer reduced pricing for residents of local MFH and "regular" or higher pricing for residents of SFH, and higher prices for EV drivers who are road-tripping from the freeway. Sacramento has one such test multi-pricing pilot underway with support from the Sacramento Metropolitan Air Quality Management District (SMAQMD and the Community Resource Project, but more testing is needed.
- 2. Include in CEC's future AB2127 Assessments an estimate of the number of private non-shared chargers, to accurately account for the real needs of California's EV drivers. As mentioned during the meeting, Germany has

<u>%99s%20a%20gas%20station%20or%20an%20EV,the%20Institute%20for%20Transportation%20Studies%20at</u> <u>%20UC%20Davis</u>

rolled back its estimate of the number of public charging stations needed³, as home charging has become more ubiquitous and remains more desirable. a

- 3. Expand alternatives to expensive electrical panel upgrades, which are not necessarily required to provide home-based EV charging. NCAC agrees with Reverend Vaughn's comment about the need for incentives – particularly for those who are lower income, who live in a DAC or an older home with street parking only, and/or who live in MFH. While the CEC may not be the right agency to provide incentives for EV purchase discounts, CEC funding *can* be used to address his concerns about the cost of home-based EV charging infrastructure. For older homes that may need an electrical panel upgrade in order to accommodate a new EV charging circuit, the CEC should expand access to alternative solutions such as these:
 - **A "switching device"** such as Dryer Buddy Plus, NeoCharge, SplitVolt, Briidea, Lectron and others – which can be installed in the electric dryer receptacle to distribute power between the dryer and the EV.^{4 5}
 - Low power Level 2 and Level 1 charging that requires less panel capacity, and often provides sufficient range for daily travel needs.
 - **Power-sharing products for the whole building,** which allow an EV to charge when the entire capacity of the electrical panel is not in use; these products are now available from companies such as DCC Electric⁶ and Moon Five Technologies⁷.
- 4. Fund ongoing education programs by CBO's, electric utilities and others, to increase public awareness of low-cost EV charging options for residents of older single family homes (SFH) that otherwise might require a panel upgrade. This would respond to Reverend Vaughn's concern about the need for education programs to help residents and property owners understand how to inexpensively adapt their houses for EV charging. This is especially important for DACs and older buildings, but also for newer homes with panel capacity limitations.

³ <u>https://financialpost.com/pmn/business-pmn/germany-to-walk-back-charging-goal-as-people-plug-evs-at-home?utm_source=ground.news&utm_medium=referral</u>

⁴<u>https://search.app/w59qRQJKCcgeciXY7</u>

⁵ https://www.bsaelectronics.com/collections/dryer-buddy-plus

⁶ <u>https://dccelectric.com/</u>, see DCC-9 or DCC-10

⁷ <u>https://www.moonfive.tech/</u>

- 5. Consult with <u>Peninsula Clean Energy</u>, which has delivered an impressive amount of charging at a very low cost to residents of MFH in their service territory, by incorporating Level 1 into their rebate structure. NCAC supports comments by Kristian Corby from CalETC about the need for Level 1 funding. Level 1 can be an appropriate solution for long dwell-time locations, including residential retrofit situations, especially for MFH, and for workplace charging.
- 6. Maintain the level of REACH funding at \$38M. We thank the CEC for doubling the recently-announced REACH 3.0 awards to increase access for MFH, and encourage you to maintain it. By investing in this critical sector, CEC is building much-needed infrastructure in the hardest-to-serve locations: affordable and low-income MFH. We also thank CEC for allowing these new chargers to be privately used by MFH residents.
- 7. Use an equity principle for funding EV charging by the Clean Transportation Program. The equity principle should ensure that funding of EV charging for MFH residents, and residents of SFH with only on-street parking, provide access to the least-cost Time of Day (TOD) tariff for EV charging that is currently available for powering other appliances in their home. Currently, nearly all charging at MFH is provided by an EV Service Provider (EVSP) that sets a price for EV charging significantly higher than the utility rate paid by residents of SFH at home. *Why should the person who lives in an apartment or condominium not have the ability to choose the same low-cost, TOD tariff for charging their EV as the person who lives in a SFH?* This inequity must be overcome.
- 8. Fund locations for DCFC charging hubs or plazas that are more likely to be economically sustainable in the long run. The report from Next 10 and the U.C. Davis Electric Vehicle Research Center⁸ makes the following recommendation for placing EV charging stations to maximize use and revenue⁹:
 - "Charging locations should be located close to travel corridors, be colocated with amenities (stores, restaurants, [restrooms] etc.), and have enough fast charging outlets per location to reduce wait times."
- 9. Fund projects where the Low Power Level 2 EV charging circuit is wired directly from an assigned parking/charging space at MFH to a dwelling unit electrical panel or meter. This direct wiring configuration provides

 ⁸ <u>https://www.next10.org/sites/default/files/2024-10/N10-business-case-ev-chargers-report-final.pdf</u>
⁹ <u>https://www.next10.org/publications/analyzing-business-case-and-consumer-preferences-fast-chargers-california</u>

equity in the cost of charging by giving the EV driver access to the least expensive TOD tariff available inside the home. This protocol was adopted in the CALGreen code effective January 1, 2026.

- Direct wiring also enables MFH residents to enjoy the benefits of bidirectional EVs, and significantly increases the number of EVs providing grid services in the future.
- 10. Devote resources and funding to educate architects and developers about the lower cost of charging to the EV driver by directly wiring the EV charging circuit in MFH from the parking/charging space to the dwelling unit's electrical panel or meter. Unless these parties are trained on how to deploy direct wiring, they are more likely to use an unregulated EVSP to handle EV charging, whose fees for charging services will be much higher.
- 11. Devote the resources required for green hydrogen technology to medium- and heavy-duty transportation only, and not light duty vehicles. It is critical to meeting our climate goals that these funds be focused exclusively on genuinely green hydrogen.

Thank you for this opportunity allowing the National Charging Access Coalition to provide input to the CEC for the Clean Transportation Program. We would be happy to discuss the issues further and address any questions that may arise.

Sincerely,

The NCAC Leadership Team Vanessa Warheit, Dwight MacCurdy, Dennis Corelis, Neda Deylami, Marc Geller, Guy Hall, Linda Hutchins-Knowles, Michelle Pierce, Sven Thesen