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Earthjustice Comments on 2026-2027 Investment Plan Update

Additional submitted attachment is included below.



May 22, 2026

California Energy Commission
715 P Street
Sacramento, CA 95814

Re: 2026-2027 Investment Plan Update for Clean Transportation Program (26-ALT-01)

Dear Mabel Aceves Lopez and Commissioner Nancy Skinner,

On behalf of Earthjustice, we submit comments on the Staff Draft Report 2026-2027 Investment Plan Update (“Investment Plan”) for the Clean Transportation Program (“CTP”). Earthjustice supports the California Energy Commission’s (“CEC”) continued focus on zero-emission vehicle (ZEV) infrastructure, particularly for battery electric medium- and heavy-duty (“MDHD”) vehicles. We appreciate the recognition in the Investment Plan that significant air and climate pollution goals can be obtained by targeting medium- and heavy-duty sectors. We also urge the CEC to refrain from funding alternative fuels with dubious climate benefits, such as biomass projects, and to continue to prioritize investments that directly benefit low-income and disadvantaged communities (“DACs”). The Investment Plan can help increase market confidence and reduce uncertainty in a ZEV transition by clearly demonstrating the state’s commitment to ZEV infrastructure, regardless of federal efforts to dismantle California’s progress.

I. Medium- and Heavy-Duty Infrastructure Investments in Freight Corridors are Most Important.

More than ever, California must make strategic investments to clean up the most polluting vehicles. Recent federal attacks on programs, funding, and state authority will have significant consequences on California’s ability to achieve its climate, air quality, and equity goals. According to the California Air Resources Board (“CARB”), the federal actions to limit and roll back regulations will result in an additional 175 tons per day of nitrogen oxides (NOx) that California must figure out how to eliminate in 2037.¹ Over the lifetime of the impacted regulations, the federal attacks on clean air protections will be responsible for more than 14,500 additional cardiopulmonary deaths, 5,000 additional hospitalizations for cardiovascular and

¹ California Air Resources Board, “Annual Update on California State Implementation Plans,” at 18, (October 2025), <https://ww2.arb.ca.gov/sites/default/files/barcu/board/books/2025/102325/25-7-2pres.pdf>.

respiratory illness, and 6,700 additional emergency room visits.² Furthermore, increased diesel particulate emissions will cause millions of additional cancers in overburdened communities like East Los Angeles, Boyle Heights, South Central Fresno, Barrio Logan, West Oakland, amongst many others.³ Beyond their direct adverse effects on human health, the federal actions undermine CARB's capacity to meet required commitments in the State Implementation Plan. Failure to meet the National Ambient Air Quality Standards can result in severe sanctions and consequences, including the implementation of contingency measures, revisions to the SIP, increased offset ratios for permitting, and the loss of billions of dollars in federal highway funding.⁴ Strategic investment of available CTP funds is more crucial than ever to safeguard the health of those most affected by our transportation systems.

We support MDHD ZEV infrastructure investments in pollution hotspots and urge the CEC to maintain its focus on these investments going forward. Diesel truck emissions primarily impact residents living near ports, railyards, and warehouses, disproportionately affecting disadvantaged and low-income communities of color.⁵ Increasing truck and bus electrification at these pollution hotspots is an effective way to deliver direct relief to disadvantaged and low-income communities across the state. We urge the CEC to continue prioritizing CTP investments in freight corridor projects, including near ports and warehouses in the most ozone-choked area of the country, the South Coast Air Basin. For example, a full transition to zero emissions in the San Pedro Bay Ports complex, the single largest fixed source of air pollution in Southern California, requires about 6,200 charging ports, which is 14 times the 462 heavy-duty charging ports available.⁶

We recognize that there can be a feeling that significant funds have already been allocated to MDHD infrastructure, so this is a lower priority. But, this could not be further from the truth. Transitioning away from combustion vehicles to protect public health from the freight industry requires diligent focus and continuous investments. Thus, we urge the CEC to increase the proposed allocations for MDHD infrastructure to better reflect the CEC's priorities and goals. At a minimum, the CEC should clarify what informed the decision to reduce MDHD allocations by more than \$10 million for fiscal years 2026-2027 and 2027-2028.⁷ These dollars are desperately needed to protect overburdened communities, and these reductions should be reversed.

² Ibid. at 19.

³ Ibid. at 20.

⁴ Ibid. at 21.

⁵ I. Torres, A. Victoria & D. Klooster, "Warehouses, Pollution, and Social Disparities: An Analytical View of the Logistics Industry's Impacts on Environmental Justice Communities across Southern California," Earthjustice, 2021, https://earthjustice.org/wp-content/uploads/warehouse_research_report_4.15.2021.pdf.

⁶ San Pedro Bay Ports, "2024 Update: Feasibility Assessment for Drayage Trucks," September 2025. Prepared by ICF.

⁷ The adopted Commission Report for the 2025-2026 Investment Plan Update allocated \$44 million for both fiscal years, while the Draft Staff Report for the 2026-2027 Investment Plan Update proposes \$30.2 million and \$34 million, respectively.

II. Hydrogen Funding Allocations Should be Restricted to Medium- and Heavy-Duty Infrastructure and Limited to 15% of the Program Budget.

As Commissioner Nancy Skinner mentioned during the May 8th Public Meeting for the Investment Plan, there has been lower uptake in hydrogen refueling infrastructure solicitations due to significantly increased hydrogen fuel costs.⁸ Additionally, various hydrogen refueling stations are unavailable due to disruptions in the hydrogen supply this year.⁹ Of the 52 retail hydrogen stations across the state, more than 60% are not operating (i.e., 21 are unavailable and 11 are offline).¹⁰ As of the end of 2025, light-duty fuel cell electric vehicles (“FCEV”) contributed 0.53% of the total light-duty ZEVs in California; the number of FCEVs in the state has been decreasing by about 1,000 vehicles annually for the past two years (Figure 1).¹¹ In comparison, over 2.2 million light-duty battery electric vehicles (“BEV”) make up over 99% of the total light-duty ZEVs in the state, with BEVs increasing by over 300,000 vehicles annually over the past three years (Figure 2).¹²

Figure 1. Light-Duty FCEVs in California.

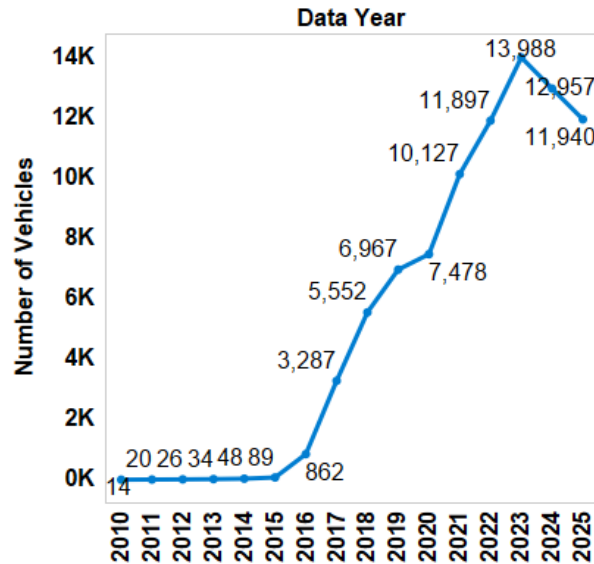
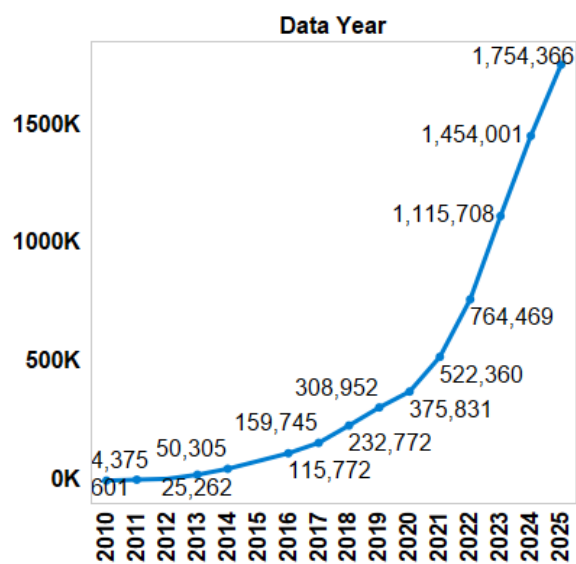


Figure 2. Light-Duty BEVs in California.¹³



⁸ CEC, Public Meeting of the Advisory Committee for the Clean Transportation Program Investment Plan, May 8, 2026, <https://www.energy.ca.gov/event/2026-05/public-meeting-advisory-committee-clean-transportation-program-investment-plan>.

⁹ Hydrogen Fuel Cell Partnership, “Retail Hydrogen Station Network Status in California,” Last Updated May 4, 2026, <https://h2fcp.org/sites/default/files/Hydrogen-Distribution-and-Supply.pdf>.

¹⁰ Hydrogen Fuel Cell Partnership, “Station Operational Status System,” Accessed May 20, 2026, <https://m.h2fcp.org/>.

¹¹ CEC, “Light-Duty Vehicle Population in California,” accessed May 16, 2026, <https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics-collection/light>.

¹² Ibid.

¹³ The BEV graph does not capture the 470,590 plug-in hybrid vehicles that are on California’s roads as of the end of 2025. PHEVs make up about 21% of the total light-duty ZEVs in the state. For more visit <https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics-collection/light>.

Light-duty FCEVs are not scaling fast enough to address California’s climate and air quality goals adequately and are diverting critical funds from proven solutions. Further investment can lock in dependence on fossil-fuel-derived hydrogen and drive health-harming pollution in DACs.

The CEC should monitor open hydrogen solicitations (e.g., the \$45 million Hydrogen Infrastructure Project Opportunity solicitation released on April 6, 2026), hydrogen station operations, and FCEV adoption to better understand real demand trends, assess how well these investments are progressing, and determine whether they are meeting ZEV deployment needs in a timely manner.

CEC should limit funding for hydrogen infrastructure to the statutory 15% carveout because hydrogen will play a small role in decarbonizing the transportation sector. Recent analysis finds that hydrogen vehicles will play a niche role, if any, in achieving climate goals. For example, independent analysts at Det Norske Veritas (aka DNV) estimated in 2024 that hydrogen would provide just 1% of on-road energy demand by 2050—a dramatic downward revision from its 2023 projection that hydrogen would provide about 3% of on-road energy by midcentury.¹⁴ The UK Climate Change Committee (“UKCCC”) also commissioned an economic analysis of competing options for decarbonizing vehicles and concluded that “there will be no hydrogen cars or vans, and very little or potentially even no role for hydrogen in heavier vehicles.”¹⁵ Past modeling efforts have overestimated the potential market for FCEVs and underestimated the potential for BEVs.¹⁶

The reason that many independent experts have found that BEVs will be the dominant zero-emission technology in the MDHD sector is their favorable total cost of ownership (“TCO”), which accounts for fuel, vehicle and maintenance costs and is the main driver of fleet purchase decisions. Academics,¹⁷ truck manufacturers,¹⁸ and multiple independent analysts have

¹⁴ Leigh Collins, DNV slashes forecast for hydrogen use in road transport amid advances in battery-electric trucks, Hydrogen Insight (Oct. 17, 2024), <https://www.hydrogeninsight.com/transport/dnv-slashes-forecast-for-hydrogen-use-in-road-transport-amid-advances-in-battery-electric-trucks/2-1-1725398>.

¹⁵ UKCCC Seventh Carbon Budget at 146, <https://www.theccc.org.uk/wp-content/uploads/2025/02/The-Seventh-Carbon-Budget.pdf>. The supporting documents for this report include ERM, ZEV HDV Uptake Trajectories: Modeling Assumptions (2024), <https://www.theccc.org.uk/wp-content/uploads/2025/02/ZEV-HDV-uptake-trajectories-ERM.pdf>.

¹⁶ For instance, when CARB adopted the first Advanced Clean Cars rule in 2012, it estimated cumulative sales of light-duty FCEVs to reach 56,844 by 2022. In the 2017 midterm review for the rule, CARB estimated that cumulative sales of light-duty FCEVs would reach 35,083 by 2022. CARB, 2017 ZEV Calculator Tool *available at* <https://ww2.arb.ca.gov/resources/documents/2017-midterm-review-report>. However, just 11,897 light-duty FCEVs were on the road in California at the end of 2022. CEC, Light-Duty Vehicle Population in California, <https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics/light-duty-vehicle>. In its 2022 Advanced Clean Cars II rulemaking, CARB found that California could achieve 100% sales of zero-emission light-duty vehicles with just 2.8% sales of FCEVs. CARB, Final Statement of Reasons for Rulemaking for the Advanced Clean Cars II Regulations, Appendix F at 7 (August 2022).

¹⁷ Patrick Plötz, *Hydrogen technology is unlikely to play a major role in sustainable road transport*, 5 Nature Elecs. 8 (Jan. 2022), <https://www.nature.com/articles/s41928-021-00706-6>.

¹⁸ Matthias Grundler and Andreas Kammel, *Why the future of trucks is electric*, TRATON (Apr. 13, 2021), <https://traton.com/en/newsroom/current-topics/future-transport-electric-truck.html>.

concluded that battery-electric technology is best positioned to decarbonize the vast majority of road-transport—even long-haul trucking.¹⁹ CEC should focus on providing infrastructure for the ZEVs that cost-driven fleet operators will actually deploy.

BEVs' economic edge over FCEVs will likely grow as they increase their purchase-price advantage against FCEVs in almost all vehicle categories. A recent study by the International Council on Clean Transportation surveyed a body of literature on vehicle price projections and found that BEVs would maintain a price advantage over hydrogen vehicles.²⁰ The study also found that BEVs will beat diesel trucks on price in these categories by 2040, but hydrogen vehicles would not. The sole vehicle category in which hydrogen alternatives beat battery electric vehicles on price by 2040 was long-haul class 8 tractor trucks, and even in that category, FCEVs achieved only a slight advantage in retail price.²¹ David Cebon, the Director of Cambridge's Centre for Sustainable Road Freight, has explained why fuel cell vehicles are more costly to manufacture today than a comparable battery electric vehicle: a fuel cell vehicle has all the components in a battery electric vehicle (with a smaller battery) plus complicated fuel cell, hydrogen tank, and hydrogen delivery equipment.²² Professor Cebon predicts that the cost advantage of battery electric vehicles will widen as the massive ramp-up of battery manufacturing for the light-duty sector drives learning curves that bring down costs for all battery electric vehicles.²³ Thus, focusing the CTP's scarce resources on infrastructure for BEVs will help speed the adoption of the most economic decarbonization solution for MDHD vehicles.

Despite ongoing CTP investments, the light-duty FCEV market has not matured. Therefore, the Commission should restrict hydrogen allocations to MDHD infrastructure. Given the limited role of hydrogen in decarbonizing MDHD fleets, the CEC should not allocate more than 15% of the CTP budget to infrastructure for FCEVs. Undersubscribed hydrogen funds and canceled hydrogen projects should be reallocated to battery-electric infrastructure, where demand continues to grow.

¹⁹ Amol Phadke et al., *Why Regional and Long-Haul Trucks are Primed for Electrification Now*, Berkeley Lab (Mar. 2021), https://etapublications.lbl.gov/sites/default/files/updated_5_final_ehdv_report_033121.pdf; Transport & Environment, *Why the future of long-haul trucking is electric* (June 18, 2021), <https://www.transportenvironment.org/discover/why-the-future-of-long-haul-trucking-is-electric/>.

²⁰ Yihao Xie et al, ICCT, Purchase costs of zero-emission trucks in the United States to meet future Phase 3 GHG standards (March 2023) at 16–20, <https://theicct.org/wp-content/uploads/2023/03/cost-zero-emission-trucks-us-phase-3-mar23.pdf>.

²¹ *Ibid.* at 22 (Fig. 17).

²² Einride, “The gap will widen”, says prof. David Cebon on electric vs hydrogen (March 5, 2023), <https://www.einride.tech/insights/prof-david-cebon-on-electric-vs-hydrogen-the-gap-will-widen>.

²³ *Id.*

III. The CEC Must Recognize the Emissions Impacts, Cost, and Alternative Uses of Biomass if Considering CTP Funding Allocations.

The CEC should reject requests to use CTP funds to support alternative fuel production. As a threshold matter, this spending does not align with current legislative priorities.²⁴ Staff's proposal appropriately prioritizes investments in infrastructure for zero-emission vehicles that are necessary to achieve California's air quality and climate goals.

Disregarding the Legislature's decision to deprioritize investments in alternative fuel production would lead to ineffective use of CTP resources. Promoting these fuels in the transportation sector has not displaced existing fossil fuel use but has instead led to the expansion of combustion fuels. The CEC should recognize that using woody biomass as a fuel does not have a proven climate benefit, that California policies appropriately prioritize more sustainable uses of agricultural wastes, and that the health harms of producing energy from biomass undercut its value as a resource. It should also acknowledge that the exorbitant costs of biomass use have made it uneconomical in most circumstances.

A. Biomass for energy production results in significant climate impacts

To understand the real climate and air quality impacts of relying on biomass for fuel, the Investment Plan would need to consider all sources of climate pollution in a complete lifecycle analysis, including 1) significant methane emissions that are released by the log landings and wood chip piles that are part of the biomass-to-energy supply chain,²⁵ 2) associated carbon emissions and air pollutant impacts from transporting biomass to where it will be used as a feedstock for fuel production, 3) additional greenhouse gas emissions created as waste products from biomass-to-energy facilities,²⁶ 4) carbon emissions and other air pollutant impacts from

²⁴ Cal. Health & Safety Code § 44272(c) requires that:

On or after January 1, 2025, when developing the investment plan pursuant to Section 44272.5, the commission shall prioritize program investments into the following:

- (1) Deployment of infrastructure and other projects that advance or support the deployment of medium- and heavy-duty vehicles to meet the clean transportation, equity, air quality, and climate emission goals described in subdivision (b).
- (2) Deployment of light-duty vehicle infrastructure technology to fill deployment gaps identified pursuant to Sections 25229 and 25231 of the Public Resources Code and advance the goals identified in Executive Order No. N-79-20.

²⁵ Research indicates that methane emissions from wood chip piles at biomass facilities can be large enough to significantly add to the overall GHG impact of bioenergy production. *See, e.g.,* Margareta Wihersaari, Evaluation of greenhouse gas emission risks from storage of wood residue, 28 *Biomass & Bioenergy* 444 (2005), <https://www.sciencedirect.com/science/article/abs/pii/S0961953404002144>; Carly Whittaker et al., Dry Matter Losses and Methane Emissions During Wood Chip Storage: the Impact on Full Life Cycle Greenhouse Gas Savings of Short Rotation Coppice Willow for Heat, 9 *Bioenergy* Rsch. 820 (2016), <https://link.springer.com/article/10.1007/s12155-016-9728-0>; Juliana Vantellingen et al., Log landings are methane emissions hotspots in managed forests, 51 *Can. J. of Forest Rsch.* 1916 (2021), <https://cdnsiencepub.com/doi/abs/10.1139/cjfr-2021-0109>.

²⁶ *See, e.g.,* Semra Bakkaloglu et al., (July 2022) [https://www.cell.com/one-earth/pdf/S2590-3322\(22\)00267-6.pdf](https://www.cell.com/one-earth/pdf/S2590-3322(22)00267-6.pdf) (noting the digestate storage and handling stage generated the most methane emissions).

woody biomass pelleted before being used as a feedstock,²⁷ 5) leakage of methane and/or hydrogen at the energy conversion facility could negate any climate benefits from using biomass to produce fuel as observed in existing, mature biogas industry,²⁸ and 6) climate destabilizing gases leaked from downstream of the conversion facility if biomass is converted to methane or hydrogen, which CARB estimates a leakage rate of 0.7%²⁹ and more recent studies have shown higher leakage rates from behind-the-meter appliances alone.³⁰

B. Soil reincorporation provides the greatest environmental value for agricultural biomass

The Investment Plan should recognize that reincorporating agricultural biomass into the soil is a more sustainable and higher-priority use of this resource than energy production. California's most productive agricultural region is in the San Joaquin Valley, which has banned almost all burning of agricultural residue.³¹ In general, the more sustainable use for this agricultural waste is for it to be chipped and reincorporated into the soil on-site as a soil amendment that can help with water retention and soil carbon sequestration.³² Mulching or leaving this waste on the ground can help control erosion, conserve soil moisture, remove harmful heavy metals, and minimize the need for pesticides and herbicides, among other benefits.³³ The CEC should also explicitly recognize that using agricultural waste for energy production comes at the opportunity cost of using it on the land, which means foregoing both the climate benefits of carbon sequestration in the soil and a range of other environmental and public health benefits.

C. Gasification and pyrolysis results in considerable health impacts

Biomass gasification or pyrolysis facilities release significant health-harming pollution. There is robust scientific evidence that the process to gasify or pyrolyze biomass creates myriad

²⁷ See, e.g., Mirjam Röder et al., How certain are greenhouse gas reductions from bioenergy? Life cycle assessment and uncertainty analysis of wood pellet-to-electricity supply chains from forest residues, 79 *Biomass and Bioenergy* 50 (2015), 10.1016/j.biombioe.2015.03.030.

²⁸ Emily Grubert, At Scale, Renewable Natural Gas Systems Could be Climate Intensive: The Influence of Methane Feedstock and Leakage Rates, *Envtl. Research Letters* (2020), <https://doi.org/10.1088/1748-9326/ab9335>.

²⁹ CPUC, 2022 Distributed Energy Resources Avoided Cost Calculator Documentation (June 2022) at 59 <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/demand-side-management/acc-models-latest-version/2022-acc-documentation-v1a.pdf>.

³⁰ Eric D. Lebel et al., Methane and NO_x Emissions from Natural Gas Stoves, Cooktops, and Ovens in Residential Homes (2022) <https://pubs.acs.org/doi/10.1021/acs.est.1c04707> (finding a post-meter methane leakage rate of 0.8-1.3% in natural gas stoves in a study of 53 California houses); Eric D. Lebel et al., Quantifying Methane Emissions from Natural Gas Water Heaters (Apr. 2020) <https://pubs.acs.org/doi/10.1021/acs.est.9b07189> (finding gas water heaters in Northern California homes leaked 0.39-0.93% of the gas they consumed).

³¹ San Joaquin Valley Air District, "Updated Phase-Out Schedule for Agricultural Burning" (Sept. 3, 2021) at 1, https://ww2.valleyair.org/media/tgmjc12b/agburninginfographics_lettersize-2x09032021.pdf ("all operations prohibited from burning all sizes of removals except in cases of disease and pest concerns").

³² Emad Jahanzad et al., Orchard Recycling Improves Climate Change Adaptation and Mitigation Potential of Almond Production Systems (Mar. 2020), <https://doi.org/10.1371/journal.pone.0229588>.

³³ Andrews, S.S., Crop residue removal for biomass energy production: Effects on soils and recommendations (2006); Xu, H. et al., A global meta-analysis of soil organic carbon response to corn stover removal, 11 *Global Change Bioenergy* 1215 (2019); Iqbal, R. et al., Potential agricultural and environmental benefits of mulches—a review, 44 *Bulletin of the National Research Centre* (2020).

air pollutants, including: NO_x, SO_x, benzene, toluene and xylenes, tars and soot, PM 2.5, and persistent organic pollutants such as polycyclic aromatic hydrocarbons (e.g., naphthalene), polychlorinated dibenzo-*p*-dioxins and dibenzofurans,³⁴ and NO_x precursors.³⁵ The gasification of biomass can also generate hazardous waste.³⁶ Trucking biomass to a gasification or pyrolysis facility would be another significant source of pollution and disruption to the neighboring community. The Pacific Gas & Electric Company woody-biomass-to-methane pilot project rejected by the CPUC would have entailed up to 9,000 diesel truck miles per year, emitting toxic and carcinogenic diesel particulate matter and other pollutants into nearby communities.³⁷ The health harms of converting biomass to fuel via gasification and pyrolysis undercuts the purported value proposition of this energy resource.

Few biomass gasification or pyrolysis facilities currently exist in the United States for the purpose of producing hydrogen or methane. Project developers have frustrated the public's ability to understand the air pollution impacts of biomass gasification for hydrogen production by characterizing their criteria pollution emissions as proprietary information.³⁸ Even if the developers' estimates regarding emissions from future projects were publicly available, there would be a significant risk that they would underestimate project emissions.³⁹

³⁴ Wu-Jun Liu et al., Fates of Chemical Elements in Biomass During Its Pyrolysis, 117 *Chem. Reviews* 6367 (2017), <https://pubs.acs.org/doi/10.1021/acs.chemrev.6b00647>; Zhiyi Yao et al., Particulate emissions from the gasification and pyrolysis of biomass: Concentration, size distributions, respiratory deposition-based control measure evaluation, 242 *Env't Pollution* 1108 (2018), <https://doi.org/10.1016/j.envpol.2018.07.126>; Jennie Perey Saxe et al., Just or bust? Energy justice and the impacts of siting solar pyrolysis biochar production facilities, 58 *Energy Rsch. & Soc. Sci.* 101259 (2019) <https://doi.org/10.1016/j.erss.2019.101259>; Simeng Li, Reviewing Air Pollutants Generated during the Pyrolysis of Solid Waste for Biofuel and Biochar Production: Toward Cleaner Production Practices, 16 *Sustainability* 1169 (2024), <https://doi.org/10.3390/su16031169>.

³⁵ Hongyuan Chen et al., A review on the NO_x precursors release during biomass pyrolysis, 451 *Chem. Eng'g J.* 138979 (2023), <https://doi.org/10.1016/j.cej.2022.138979>.

³⁶ Farooq Sher et al., Cutting-edge biomass gasification technologies for renewable energy generation and achieving net zero emissions, 323 *Energy Conversion & Mgmt.* 1 (Jan. 1, 2025), [https://www.no-burn.org/wp-content/uploads/Waste-Gasification-and-Pyrolysis-high-risk-low-yield-processes-march-2017.pdf](https://www.sciencedirect.com/science/article/pii/S0196890424011543#:~:text=It%20is%20found%20that%20optimizing,adoption%20in%20the%20global%20market; Neil Tangri et al., GAIA, Waste Gasification & Pyrolysis: High Risk, Low Yield Processes for Waste Management (Mar. 2017), <a href=).

³⁷ California Public Utilities Commission proceeding Application 23-06-023, Prepared Testimony of Ranajit (Ron) Sahu and Sasan Saadat on Behalf of Sierra Club on the Application of PG&E for Approval of Its Woody Biomass to Methane Pilot Project (U39G), (Feb. 16, 2024) at 25:18-24. <https://docs.cpuc.ca.gov/PublishedDocs/SupDoc/A2306023/7054/525583319.pdf> at 25 (citing CARB, Overview: Diesel Exhaust and Health <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>).

³⁸ Alliance for Renewable Clean Hydrogen Energy Systems, ARCHES Technical Submission to DOE, at 82 (Apr. 2023), <https://archesh2.org/wp-content/uploads/2024/08/ARCHES-Technical-Volume-Redacted.pdf> (“GHG emissions and criteria air pollutants emissions for biomass facilities are proprietary data, and include diesel truck biomass transport, diesel truck waste transport, PPA-solar electricity, natural gas, chemical feedstock life cycles, CO₂ treatment compression and sequestration, hydrogen conditioning and direct emissions from the facility.”).

³⁹ For instance, Pacific Gas & Electric Company proposed a biomass gasification facility and underestimated its air emissions in several ways, such as failing to account for fugitive emissions. California Public Utilities Commission proceeding Application 23-06-023, Prepared Testimony of Ranajit (Ron) Sahu and Sasan Saadat on Behalf of Sierra Club on the Application of PG&E for Approval of Its Woody Biomass to Methane Pilot Project (U39G), at 10:13–11:20 (Feb. 16, 2024), <https://docs.cpuc.ca.gov/PublishedDocs/SupDoc/A2306023/7054/525583319.pdf>.

D. Using biomass for energy is expensive

The CEC should consider the exorbitant costs associated with using biomass for energy. The history of the CPUC's the Bioenergy Market Adjustment Tariff ("BioMAT") program is illustrative, demonstrating that biomass projects are expensive for ratepayers, with little if any pay off for the climate, air quality, or ratepayers. Over ten years since it launched, the BioMAT program remains undersubscribed and extremely costly.⁴⁰ Indeed, Pacific Gas & Electric Company recently opposed the Bioenergy Association of California's attempt to extend the program, citing cost concerns.⁴¹ Further, as noted above, the CPUC recently rejected Pacific Gas & Electric Company's biomass pilot project which, as indicated in Sierra Club's briefing on the application, would have imposed excessive costs per MMBtu that were neither just nor reasonable.⁴² Notably, a 2020 CEC study found that even under optimistic cost projections, the cost of methane produced synthetically such as through thermal gasification of biomass to syngas would be 8 to 17 times more expensive than the expected price trajectory of fossil gas.⁴³

Additionally, the CPUC's biomethane procurement program has not resulted in any procurement of methane derived from biomass, and the few procurement contracts that have been submitted have raised cost concerns. For instance, the CPUC recently rejected two landfill methane contracts finding that it "agrees with Sierra Club that 'the cost of this biomethane is not justified' for this landfill gas procurement opportunity and goes further to say that price would be a significant barrier to approval even if this type of procurement was allowed at this point in the program."⁴⁴ Tellingly, in comments submitted to the CPUC about its biomethane procurement program, the Coalition for Renewable Natural Gas admitted that "the Commission should not expect cost declines to the degree seen historically in other renewable technologies, such as solar and wind," and that "significant cost declines are not expected" for biomethane production.⁴⁵

For these reasons, we oppose funding biomass resources for energy production, given several challenges to air quality, climate, and sustainable agriculture policies.

⁴⁰ See, e.g., CPUC, Bioenergy Market Adjustment Tariff (BioMAT): AB 843 Implementation Workshop at Slide 14 (Apr. 28, 2023), https://www.cpuc.ca.gov/-/media/cpuc-website/industries-and-topics/documents/energy/rps/ab-843-workshop_04282023.pdf (only 48.8 contracted capacity of 250 MW program total with contracted price of forest waste at \$199.72/MWh and biogas from diverted waste at \$127.72/MWh).

⁴¹ R.18-07-003, PG&E Response to BAC Petition to Modify Decision 20-08-043 (April 7, 2025) at 2, <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M562/K084/562084633.PDF>.

⁴² Sierra Club, Reply Brief (public version) (May 29, 2024) at 9-11, <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M533/K099/533099082.PDF>.

⁴³ Aas et al., The Challenge of Retail Gas in California's Low-Carbon Future (April 2020) at 4, <https://www.energy.ca.gov/sites/default/files/2021-06/CEC-500-2019-055-F.pdf>.

⁴⁴ CPUC Resolution G-3612 (redacted version) at 9, <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M557/K879/557879266.PDF> (quoting Sierra Club Protest to SoCalGas AL 6316-G at 2.),

⁴⁵ CPUC, R.13-02-008, RNG Coalition, Opening Comments on Assigned Commissioner's Ruling, (July 19, 2024) at 7, <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M536/K273/536273401.PDF>.

IV. Investments in Charging Infrastructure for Light-Duty Vehicles Should Prioritize Multi-Family Units in Disadvantaged Communities.

Light-duty charging infrastructure investments in DACs and low-income multi-family homes are essential for overcoming barriers to successful ZEV adoption and access. We support continued prioritization of areas that deliver the greatest possible benefit to communities facing the highest pollution levels and the greatest barriers in accessing clean transportation. We urge the CEC to continue to exceed the minimum requirements established by AB 126 for investments in and benefiting DACs and low-income communities. We appreciate that, of the more than 2,000 CTP-funded projects over the past 2.5 years, 94% are in nonattainment areas, and 61% are in disadvantaged or low-income communities.⁴⁶

V. Support Changing the CTP Timeline to Align with Fiscal Year Implementation.

The CTP development timeline should be predictable and transparent. The current process has resulted in adopting Investment Plans months into the fiscal year to which they correspond. We support shifting the timeline to align with the start of each fiscal year. Predictable scheduling aligned with fiscal year implementation timing will help create consistency, improve coordination, and increase confidence in the program and its goals. We urge the CEC to establish consistent program rollouts that ensure ample timelines for public comment within the revised timeline.

We appreciate your consideration of these comments and look forward to working with the Commission on finalizing the Investment Plan Update.

Sincerely,

Vanessa Rivas Villanueva
Adrian Martinez
Earthjustice

⁴⁶ Mabel Aceves-Lopez, “2026–2027 Investment Plan Update for the Clean Transportation Program,” California Energy Commission, Publication Number: CEC-600-2026-021-SD.