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Rajinder Sahota, Deputy Executive Officer
California Air Resources Board
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RE: PG&E Comments on Proposed Modifications to the Low Carbon Fuel Standard Amendments

Pacific Gas and Electric Company (PG&E) appreciates this opportunity to comment in response to the California Air Resources Board's (CARB) release on August 12, 2024, of additional proposed modifications to the Low Carbon Fuel Standard (LCFS) regulation for a 15-day public comment period (15-Day Draft). While PG&E supports several of the changes in the 15-Day Draft, there are a number of critical updates to electricity-related provisions that were not included which should be prioritized for a second round of 15-day modifications. PG&E's comments below summarize these missing, largely technical fixes, from our prior comment letters while also raising concerns related to new provisions introduced in the 15-Day Draft

<u>Summary of Comments:</u>

- PG&E supports program stringency, FCI, and holdback program administration spend modifications, with additional changes.
- Modifications are still necessary for enabling maximum benefits from LCFS-funded utility transportation electrification programs.
- Potential diversion of utility LCFS credits to EV manufacturers needs additional clarification and guardrails.
- Modifications to deliverability requirements for book-and-claim biomethane accounting further undermine LCFS' fuel-neutral principle.
- Development of an alternative incentive program to support the transition of biomethane and low-carbon hydrogen to non-transportation sectors is necessary to align with the 2022 Scoping Plan.
- Restricting qualified forest biomass feedstock to "non-industrial forestlands" could hinder development of biofuels projects that support wildfire risk mitigation.
- The LCFS Program should continue to support, not hinder, the near-term development of a hydrogen ecosystem on the path toward deep decarbonization.

PG&E Supports Program Stringency, FCI, and Holdback Program Administration Spend Modifications, with Additional Changes

PG&E supports the proposed increased stringency, including 30% in 2030 and 90% in 2045 and a 9% step-down in the first year. However, PG&E believes that CARB should allow for activation of the Auto Acceleration Mechanism (AAM) as soon as 2026, and at an average quarterly deficit ratio of 2.0, rather than 3.0 for the reasons outlined in our May 10 letter.[1]

PG&E also appreciates the proposed changes to the Fast Charging Infrastructure (FCI) program, in particular increasing the medium/heavy-duty (MHD) geographic restriction from one mile to five miles from a major highway corridor, as this is important to avoid potential adverse impacts on the grid, and not delay deployments or increase overall costs.

Additionally, PG&E supports the cap on administrative costs for utility holdback programs to 7%. However, if CARB does not intend to expand the definition of administrative costs to include program-specific costs aligned with how utilities report for other regulators, and clarify that this excludes start-up costs and marketing, education, and outreach (ME&O) costs, it is critical that this cap increase to 10%, for the reasons detailed in our February 20th letter[2] and in the CalETC Board letter being submitted concurrently. Administrative cost caps are a complex issue and vary significantly depending on definitions of what is and is not included, and with increasing requirements to focus on harder-to-reach customers, flexibility is critical to ensure programs are effectively run and equity goals are attained.

Modifications are Still Necessary for Enabling Maximum Benefits from LCFS-Funded Utility Transportation Electrification Programs

PG&E's February 20 comments detailed a list of largely technical changes and fixes to the 45-day regulatory draft that, while potentially appearing minor, are in fact critically important to our ability to effectively propose, administer and run LCFS-funded programs and projects for our customers that best serve their needs and the needs of the grid. PG&E is disappointed to see that none of these non-controversial requests were acted upon. At a high level, these necessary modifications include:

- Merging the proposed two separate holdback project lists into a single project list and clarifying that certain project types are considered equity regardless of their geographic location;
    - Explanation: The separate equity and non-equity project lists in the 45-Day Draft create ambiguity and confusion as written and could lead to delays in approval from the CPUC, which also has jurisdiction over the investor-owned utilities'

[1] PG&E Comments on April 2024 LCFS Comments, May 10, 2024, p. 2. Available at https://ww2.arb.ca.gov/approved-comments?entity_id=35921&page=3
[2] PG&E Comments on 45-Day LCFS Amendments, February 20, 2024, p. 7-8. Available at https://www.arb.ca.gov/lists/com-attach/7082-lcfs2024-BmpRNFUyUnIEXQM3.pdf

(IOUs) programs. The proposed edits will allow for more diversity in equity projects for low-income individuals and those who meet the equity definition, and faster deployment of LCFS funds to customers.

- Aligning CARB's increased equity requirement of 75% for large IOUs with the CPUC requirements for all aspects of the requirement, not just the reporting percentage;
    - Explanation: CARB and the CPUC currently track different metrics (proceeds vs. spend accounting) which could lead to compliance challenges to the extent that PG&E could end up unable to comply with both CARB and the CPUC, forcing a choice between which agency's requirements to meet. CARB should switch to spend-based accounting, which would eliminate this risk and provide all the benefits detailed in our February 20 comments.

- Ensuring that grid-side investments that support both light-duty and MHD EV charging be eligible for equity spending requirements, if serving projects in an equity community;
    - Explanation: Limiting equity-eligible investments to MHD would unnecessarily complicate grid planning, program development and the ability to scale such a program. It also ignores that light-duty fast charging is critical for EV equity for those who cannot charge at home.

- Making key edits to the proposed third-party verification requirements for electricity pathways such as: 1) Exempting residential and non-residential on-road electricity pathways from Fueling Supply Equipment (FSE) site visits except in cases where there is a reasonable concern about accuracy, and 2) Exempting very small credit generators.
    - Explanation: Commercial and residential EV charging stations are largely standardized pieces of equipment subject to existing accuracy regulations.[3,4,5] Additional verification would be duplicative, unnecessary in most cases, and costly, potentially wiping out the proceeds for very small LCFS credit generators.

Further detailed explanations of these important and necessary changes are provided in our February 20 comments, and in the CalETC Board comment letter on the 15-Day Draft, which includes proposed redline edits to implement these needed changes.[6] Incorporation of these critical modifications in a second round of 15-Day changes is essential for effective operation of utility LCFS programs, and we appreciate Staff's attention and support in this regard.

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[3] Utility meters are certified to ANSI C12 standards by Nationally Recognized Testing Labs (NRTLs)

[4] California Department of Food and Agriculture's Division of Measurement Standards (DMS) regulates EV chargers for metering accuracy: https://www.cdfa.ca.gov/dms/pdfs/regulations/EVSE-OAL_EndorsedLetter-and-FinalText.pdf

[5] Each California county's Department of Weights and Measures conducts inspections to enforce the DMS requirements, paid for through county device registration fees: https://www.cdfa.ca.gov/dms/docs/publications/2023/2023_Combined_BPC.pdf

[6] CalETC Comment Letter on LCFS 15-Day Draft, August 27, 2024. Available at: https://www.arb.ca.gov/lists/com-attach/7433-lcfs2024-UzBUMwZrVGIHdVc0.pdf

Potential Diversion of Utility LCFS Credits to EV Manufacturers Needs Additional Clarification and Guardrails

The 15-Day Draft includes a new provision that would give CARB's Executive Officer (EO) the option to divert up to 45% of utility base residential credits to EV Original Equipment Manufacturers (OEMs) if the share of new light-duty ZEV sales for model year 2024 is less than 30%. Overall, PG&E raises concern that this provision was added with no prior public process, notification or workshop, and that providing LCFS credits to entities that are not fuel suppliers represents a significant and novel deviation from a core, underlying principle of the LCFS program to date. Should the provision stand, the proposed language should be clarified to minimize negative potential impacts to the programs these credits currently fund.

PG&E recommends the following changes:

- Confirm and clearly articulate that OEMs could only receive credits from the pool that would otherwise have been deposited by a utility to support the state-wide rebate program (California Clean Fuel Reward, CCFR).
    - Explanation: The percentage of credits that a utility must contribute towards the CCFR program differs depending on utility size and absent this clarification, could mean a reduction in the credits that utilities can "holdback" for their territory-specific TE programs.
- Include a deadline of March 15, 2025 by which the EO must decide whether to divert credits to OEMs in order to provide certainty and allow utilities to plan for and expend resources to launch a newly re-focused MHD CCFR program without having those funds diverted mid-stream.
    - Explanation: Requiring the Executive Officer's assessment by March 15 will ensure that the EDUs have certainty on whether to move forward with the MHD CCFR program as well as provide enough time to initiate a timely transfer of credit proceeds to the CFR program by the contribution deadlines, if needed.
- Ensure Board oversight of the Executive Officer's discretion to reallocate base credits to the OEMs.
    - Explanation: The decision to divert credits to OEMs – who are not subject to equity spending requirements or the additional regulatory oversight by the CPUC/local governing boards – is a departure from the premise of the LCFS program and should be subject to Board oversight. The final order should require the Executive Officer to review the implementation of any OEM program and present a report to the Board annually, beginning January 1, 2027.

Please refer to the California Joint Utilities letter being submitted concurrently for further details and proposed redlines to effectuate these important regulatory clarifications.[7]

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[7] California Joint Utilities Comment Letter on LCFS 15-Day Changes, August 27, 2024. Available at https://www.arb.ca.gov/lists/com-attach/7439-lcfs2024-BWRVJgFnACZVIAB0.pdf

Modifications to Deliverability Requirements for Book-and-Claim Biomethane Accounting Further Undermine LCFS' Fuel-Neutral Principle

The 15-Day Draft includes a new deliverability requirement for biomethane book-and-claim accounting which adds a condition that if the Executive Officer approves a gas system map identifying interstate pipelines and their majority directional flow based on specified flow data by July 1, 2026, pathways for bio compressed natural gas (CNG), bio-liquified natural gas (LNG), and bio-L-CNG combustion in vehicles would need to demonstrate physical flow to California after December 31, 2037. Biomethane is not the only fuel eligible for book-and-claim accounting in the LCFS program but is being uniquely targeted by this condition in a manner that would limit biomethane supply eligible for LCFS credits based solely on geography, rather than carbon intensity. This runs counter to the fuel-neutral principle underpinning the LCFS program's original design, setting a troubling precedent for other jurisdictions looking to model programs based on California. Greenhouse gases are a global, not local issue, which a physical deliverability requirement ignores.

Further, PG&E notes that should the EO approve a gas system map, it would only reflect that snapshot in time when it was developed. Major changes to the natural gas market (such as state and local bans on fracking, or a decline in fossil natural gas demand) could change these flows. Even with an updated map, proving physical flow through evidence such as purchase of transmission rights would be difficult, time-consuming, and provide a considerable barrier, especially for small-volume biomethane fuel providers such as a municipal CNG station.

Development of an Alternative Incentive Program to Support the Transition of Biomethane and Low-Carbon Hydrogen to Non-Transportation Sectors is Necessary to Align with the 2022 Scoping Plan

As noted in PG&E's prior comments, CARB should ensure that the phase-out of avoided methane crediting in the LCFS program does not stymie methane capture investments. While the end-date is not until 2040, the regulatory signal from the phase-out could have a chilling effect on the financing prospects of near-term projects, running counter to the State's goals. The 2022 Scoping Plan identifies a long-term role for biomethane in decarbonizing California's energy use for the production of hydrogen and for use in non-transportation sectors. As the Board considers changes to LCFS that would tighten the credits available for biofuels in the transportation sector, it is important to start a parallel conversation focused on establishing a similar support structure for non-transportation sectors to facilitate continued investment in clean fuel projects. Therefore, PG&E encourages CARB to move swiftly in developing an industrial clean fuels standard or an alternative incentive mechanism that can provide needed support for biofuels and hydrogen to help reduce industrial emissions.

Restricting Qualified Forest Biomass Feedstock to "Non-Industrial Forestlands" Could Hinder Development of Biofuels Projects that Support Wildfire Risk Mitigation

PG&E has taken a stand that catastrophic wildfires shall stop in California. In addition to PG&E's own mitigation activities and innovations, partnership with other stakeholders (including private landowners and state, federal, and local governments) will be necessary to achieve this stand. Removal of forest biomass is a critical tool in reducing the risk of wildfires and the LCFS program can help incentivize beneficial use of this biomass. PG&E is concerned that the amendments proposed in the 15-Day Draft[8] could undermine this incentive by limiting the forestlands from which woody biomass could be considered as a specified source feedstock (and thus eligible for a reduced carbon intensity score that reflects lower emissions or credit for use of a waste, residue or by-product). Eliminating waste from "industrial forestlands" from eligibility would limit the ability of biofuel producers to secure long-term fuel contracts from dedicated sources, a critical element for project financing. Removal and utilization of non-merchantable forest biomass is critical for wildfire risk reduction on both industrial and non-industrial lands. Denying all forest biomass from non-industrial forestlands, including non-merchantable biomass, from being a qualifying feedstock could hinder the development of biofuel projects seeking to support the health of California's forests and lands. PG&E therefore urges CARB to further discuss these provisions with relevant stakeholders and remove or modify this restriction.

The LCFS Program Should Continue to Support, Not Hinder, the Near-Term Development of a Hydrogen Ecosystem on the Path Toward Deep Decarbonization

The 15-Day Draft introduces several changes that were not previously presented in workshops or otherwise discussed with stakeholders which could have negative impacts on the development of the hydrogen ecosystem. PG&E's comments concerning hydrogen include:

- Removal of LCFS credit generation eligibility for hydrogen produced using fossil gas as a feedstock, effective January 1, 2031.
- Book-and-claim accounting changes that restrict the use of book-and-claim for hydrogen, limiting the crediting flexibility for hydrogen producers.

In the 15-Day Draft CARB proposes to remove LCFS credit generation eligibility for hydrogen produced using fossil gas as a feedstock, effective January 1, 2031.[9] Staff is proposing to remove LCFS crediting eligibility for hydrogen produced from fossil fuels at the end of 2030 to align with the current operational timeline for projects funded under the hydrogen hubs (ARCHES) grants, which will ideally expand the supply of renewable hydrogen in California. However,

[8] LCFS 15-Day Draft, Attachment A-1, page 152. Section 95488.8(g)(1)(A)(3)
[9] Ibid. Page 37. Section 95482(h)

there are numerous development challenges which could impact the operational readiness and production capacity of these projects. A diversity of production methods, especially in the near-term, may be critical for supporting expansion of the hydrogen market.

In particular, hydrogen production from fossil fuels using certain methods, such as methane pyrolysis or steam-methane reforming with carbon capture, can achieve a carbon intensity comparable to that of electrolytic hydrogen produced from renewable electricity. These production methods produce low-carbon hydrogen at an affordable price, which could help California with meeting its incremental climate goals more quickly, in conjunction with renewable hydrogen. These production methods can replace fossil fuels with RNG over time as more clean fuels become available, resulting in net-negative CI scores. CARB should carefully consider the implications of prematurely cutting off these production methods from the LCFS program while the hydrogen ecosystem is still developing. The SB 1075 Report on Hydrogen Development, Deployment and Use, as well as the Hydrogen Market Development Strategy are still pending and could provide important insight on the role LCFS should play across various timelines and production types.

Another concern is that the proposed 15-Day Draft changes to book-and-claim accounting for hydrogen could limit the crediting flexibility for hydrogen producers and significantly limit the market potential for hydrogen in California. With these changes, production of electrolytic hydrogen essentially requires co-location of renewable energy and hydrogen production to qualify, which severely limits electrolytic hydrogen production as the electric grid becomes cleaner and could be used to produce low-carbon hydrogen.

These proposals as well as other provisions discussed in the comments filed by the California Hydrogen Business Council, highlight factors which could slow the development of hydrogen infrastructure and hinder California's broader clean energy goals. PG&E urges additional discussion with stakeholders and consideration of the potential impacts of these modifications to ensure the LCFS regulation is better aligned with renewable energy policies and the hydrogen strategies at both the State and Federal level.

Conclusion

PG&E urges additional opportunities for discussion of the new provisions released in the 15-Day Draft and looks forward to continuing collaboration with CARB staff and public stakeholders on potential amendments to the Program that will best support the State’s climate goals in a timely, and effective manner.

Sincerely,

/s/
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