August 27, 2024

Clerks' Office
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Subject: Comments on the California Air Resources Board's August 12, 2024, Proposed Amendments to the Low Carbon Fuel Standard

Dear Chair Randolph and Honorable Members of the Board:

Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company (SDG&E), jointly referred to as the "Sempra California Utilities," appreciate the opportunity to provide comments on the California Air Resources Board's (CARB) August 12, 2024, Proposed 15-Day Amendments to the Low Carbon Fuel Standard (LCFS). This program has significantly reduced greenhouse gas emissions (GHGs) and air pollution and is a cornerstone of California's ambitious goal to achieve carbon neutrality by 2045.

The Sempra California Utilities believe that LCFS policy should continue to build upon the important efforts it has made in establishing clean fuels as critical resources that can enable GHG reductions in the transportation sector. The Sempra California Utilities request that CARB consider extending these learnings, innovations, and processes into an equally potent transition for the industrial sector. Our comments highlight the following: 1) CARB should establish an Industrial Clean Fuels Standard to advance clean fuel use in the industrial sector; 2) The proposed reduction in maximum avoided methane emissions crediting periods is premature and may harm the viability of existing projects; 3) Biomethane used in natural gas vehicles should continue to earn credits to support legacy vehicles beyond 2040; 4) CARB should clarify how an entity can demonstrate the deliverability requirements within section 95488.8(i)(2)(B); 5) Book-and-Claim (B&C) accounting provisions for biomethane should include biomethane used to produce onsite electricity for battery electric vehicle (BEV) charging; and 6) Regulatory uncertainty dampens investor confidence and should be minimized.

I. CARB should establish an Industrial Clean Fuels Standard to advance clean fuel use in the industrial sector.

Since its inception, the LCFS has provided credits for low carbon fuels that would not have been viable based on market competition with long-established fossil fuels. As CARB noted in a presentation this year to the Environmental Justice Advisory Committee, LCFS has driven a 12.6% reduction in the carbon intensity of California's transportation fuels, displaced 25 billion gallons of petroleum fuels, and replaced 60% of California's fossil diesel fuel with biomass-based diesel.[1] While RNG made up 5.1% of all on-road alternative fuels dispensed by volume, it generated 19.2% of all carbon dioxide equivalent (CO2e) emission reductions of on-road alternative fuels reported under the California LCFS in 2023.[2] If CARB applies its proven methodology beyond the transportation sector to industrial fuel uses, it will have an even greater impact.

Natural gas plays a critical role in powering the foundations of our state's economy. Process heat accounts for about 85% of industrial natural gas use in California. Typical industrial process heating equipment includes boilers, furnaces, and evaporators, which produce heat via natural gas combustion, as well as combined systems that produce both heat and electric power. While decarbonizing some industrial process may allow for electrification, other processes are hard to electrify and will require reducing the carbon intensity of the current fuel mix via a combination of renewable natural gas (RNG), solar thermal heat, clean hydrogen, and other low carbon, zero carbon, and carbon negative fuels.[3]

CARB should extrapolate the success of the LCFS for mobile sources into an Industrial Clean Fuel Standard for stationary sources. This approach might take the form of a separate program or an expansion of the current LCFS program to include industrial stationary emission sources. Similar to the LCFS, such a standard could impose a decreasing emissions-based target on regulated entities, allowing the industrial sector to achieve emission reductions in a technology-neutral manner by choosing amongst various carbon reduction strategies including electrification, procuring low- and zero-carbon and carbon-negative fuels, utilizing carbon capture and sequestration, and/or improving energy efficiency. This policy regime would help fulfill the goals in CARB's 2022 Scoping Plan for the long-term deployment of biomethane for hydrogen production and its expanded use in stationary sources.[4] Without initiating a process to develop an Industrial Clean Fuel Standard, it would be premature to place restrictive rules on the LCFS that could cause existing biomethane and other clean fuel projects to stall or to sell their fuel outside of the California market.

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[1] https://ww2.arb.ca.gov/sites/default/files/2024-03/2024.3.15%20LCFS%20EJAC%20Slides_final.pdf

[2] California Air Resources Board, Low Carbon Fuel Standard Program Reporting Tool Quarterly. Available at: https://ww2.arb.ca.gov/resources/documents/low-carbon-fuel-standard-reporting-tool-quarterly-summaries.

[3] California's industrial sector accounts for 33% (or 661 billion cubic feet) of the State's gas consumption, contributes 23% of the State's GHG emissions, and has the second highest emissions reduction potential for meeting the 2030 targets as set forth in SB 350.

[4] https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf; pg 88, 207 & 2012.

II. The proposed reduction in maximum avoided methane emissions crediting periods is premature and may harm the viability of existing projects.

In the proposed 15-day Amendments, CARB capped avoided methane crediting to 20 years with a hard stop at 2040 for biomethane used in CNG vehicles and 2045 for biomethane used to produce hydrogen or electricity. The Sempra California Utilities believe that the previous proposal of 30 years is more appropriate and requests CARB clarify the justification for this change. Currently, avoided methane crediting provides a pathway for payback on initial capital costs of methane capture projects and keeps these projects viable. Limiting avoided methane credits would financially undermine existing methane capture projects and discourage new ones. Dairy Cares states that long-term financial markets are necessary for dairy farmers to justify investing in long-term emission reduction solutions.[5]

Financing decisions and support for biomethane projects require policy certainty; markets will fail to attract new investment if regulators propose a new framework that prematurely curtails benefits for emissions reductions and deters new projects. These projects provide some of the most cost-effective investments the state is making in carbon reductions and should be strengthened, not abandoned.[6] Given that methane capture projects can only succeed with incentives in place, CARB should not phase out credit for avoided methane emissions from biomethane before there is a viable alternative market so that California's progress on short-lived climate pollutant (SLCP) reductions is neither slowed nor reversed. Adequate support for clean transportation fuels is especially important, as we emphasized above, as those fuels could provide a pathway to truly revolutionary carbon reductions in the industrial sector. Competitive pricing and availability of supply are influenced substantially by CARB's decisions on methane reduction credit availability and will send critical signals to the market when looking to expand biomethane usage to other hard-to-abate sectors such as industry.

III. Biomethane used in natural gas vehicles should continue to earn credits to support legacy vehicles beyond 2040.

The Sempra California Utilities support the move towards zero-emission vehicles but submits that it would be unwise to set an arbitrary end date for using biomethane in natural gas vehicles under the LCFS. Section 95482(g) of the proposed regulation states that any project starting after 2029 will not be eligible to generate LCFS credits if the biomethane produced is used in a natural gas vehicle. This could immediately hinder the state's decarbonization and SLCP reduction efforts.

To reduce SLCP emissions as required by Senate Bill (SB) 1383 (Lara, 2016), new methane capture projects are needed in California. To support the goals of SB 1383, projects that break ground after 2029 need to be eligible to generate LCFS credits for selling biomethane for natural gas vehicles. Even with statewide shift to zero-emission vehicles, legacy natural gas vehicles, will remain on the road beyond 2040. If section 95482(g) is not removed, an unfortunate and unintended consequence

[5] Dairy Cares Comments on May 31 and June 1, 2023 Low Carbon Fuel Standard Virtual Community Meeting. https://ww2.arb.ca.gov/system/files/webform/public_comments/4026/230614%20Dairy%20Cares%20Comments%20on%20LCFS%20Virtual%20Community%20Meetings%20%2800607595xBA8E1%29.pdf

[6] https://ww2.arb.ca.gov/sites/default/files/2020-11/dsg2-final-recs-112618.pdf

might be that some natural gas vehicle operators would revert to using fossil fuels after 2040 for their legacy vehicles, thereby negating the LCFS program's goals.

The LCFS should allow biomethane to generate credits regardless of the vehicle type using the fuel, as long as the vehicle type does not affect the fuel's carbon intensity. Therefore, CARB should eliminate section 95482(g) from the proposed regulation to permit the use of biomethane in natural gas vehicles as long as they remain on the road.

IV. CARB should clarify how an entity can demonstrate the deliverability requirements within section 95488.8(i)(2)(B).

According to section 95488.8(i)(2)(B), projects commencing after December 31, 2029, must verify that injection occurs in a pipeline that flows toward California at least 50% of the time on an annual basis. However, this requirement necessitates further clarification, as it remains unclear how an entity is expected to demonstrate physical flow and whether this verification must occur annually. Given the variability of gas flow driven by supply and demand, an annual verification could prove exceedingly challenging. Moreover, pipeline optimization is a complex process that relies on computer automation to efficiently meet demands while minimizing fuel usage. Therefore, imposing a 50% delivery requirement to California risks destabilizing the overall system by mandating flow to the state.

Additionally, in the proposed 15-day amendments, CARB indicated that the Executive Officer may approve a gas system map to facilitate the implementation of deliverability requirements. However, it is still ambiguous how the reporting entity is expected to utilize this map—based on directional flow data from 2020 to 2023—for projects that have yet to be developed.

Given these uncertainties, Sempra California Utilities seeks clarification on these issues and would appreciate a specific discussion on how CARB envisions these qualifications being met prior to any modifications to the B&C provisions. Furthermore, considering the current nascent conditions of the RNG market in California, where most RNG is sourced from out-of-state, requiring delivery to California would incur additional costs associated with scheduling gas delivery. This, in turn, could undermine the value that presently benefits customers using RNG as their transportation fuel.

V. Book-and-Claim accounting provisions for biomethane should include biomethane used to produce onsite electricity for BEV charging.

Biomethane can efficiently produce onsite electricity for BEV charging, aiding California's ambitious zero-emission vehicle targets and supporting vehicle electrification[7]. Electrifying fleets according to CARB regulations can be challenging, primarily due to the significant capacity and energy demands of developing charging infrastructure for medium- and heavy-duty (MHD) vehicles. Given the high energy requirements of industrial MHD charging on limited spaces, microgrid technologies like fuel cells and linear generators are solutions that can meet these needs. These technologies can provide

[7] https://www.prologis.com/insights/success-stories/north-americas-largest-heavy-duty-ev-charging-hub-powered-microgrid

reliable and resilient energy and augment grid power needed to meet the demands of electrifying fleets, thereby enabling the transition. Their beneficial operational attributes and capabilities can support the State's electrification efforts by addressing barriers to and benefits for electrification while supporting decarbonization and affordability impacts.

Facing several year delays for grid interconnections, companies are turning to onsite generation with energy storage as a way to meet fleet electrification goals before utility connections are established.[8] This approach also provides added reliability and resilience capabilities for fleet operations when the utility connection is eventually made. Moreover, using renewable fuels, such as dairy biomethane and renewable hydrogen, would enhance project benefits. However, current LCFS rules allow B&C accounting for biomethane used in compressed natural gas trucks or hydrogen for fuel cell vehicles, but not for biomethane used to generate electricity onsite for BEV use. This restriction limits the broader adoption of innovative strategies like microgrids using fuel cell and linear generator technologies to accelerate BEV deployment and charging in MHD fleets. As such, B&C accounting provisions for biomethane should include biomethane used to produce onsite electricity for BEV charging.

VI. Regulatory uncertainty dampens investor confidence and should be minimized.

Regulatory uncertainty remains one of the most significant factors influencing investor decisions and cannot be overlooked by policymakers. While the requirements in section 95488.9(g) are limited to biomass, they should be modified to explicitly *exclude* other RNG feedstocks. Without such clarification, investors may perceive the language as yet another layer of uncertainty (in the event that similar provisions might be proposed for other RNG feedstocks in the near future). Imposing additional scrutiny on how facilities qualify their feedstocks not only hinders the growth of California's RNG market but also raises the cost of in-state RNG production compared to out-of-state alternatives.

Conclusion

The Sempra California Utilities appreciate the opportunity to provide comments and participate as a stakeholder regarding amendments to LCFS. We are committed to a decarbonized energy system that is affordable for all Californians. We look forward to continued engagement in CARB's regulatory process.

Respectfully,

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[8] Ibid.