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Cheryl Laskowski
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P.O. Box 2815
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Subject: Comments on the California Air Resources Board Low Carbon Fuel Standard Workshop held February 22, 2023

Dear Dr. Laskowski:

Southern California Gas Company (SoCalGas) appreciates the opportunity to provide comments on the February 22, 2023, California Air Resources Board (CARB) Low Carbon Fuel Standard (LCFS) workshop. The LCFS has been an important program for accelerating the use of lower carbon transportation fuels and reducing greenhouse gas (GHG) emissions. To continue to achieve aggressive targets, CARB must promote a long-term stable environment to encourage investors to develop projects which reduce the carbon intensity of California's transportation fuels. We recognize and appreciate the acknowledgment during the workshop from staff that biomethane will continue to be utilized in the LCFS program; however, the proposed deliverability requirements and incentive adjustments could lead to the unintended consequence of undermining investments in biomethane and the associated infrastructure that are needed to achieve California's ambitious GHG reductions goals.

As such, SoCalGas's comments highlight the following: 1) Avoided methane crediting is necessary to support methane capture projects; 2) Biomethane Book & Claim (B&C) Eligibility meets the spirit of the Renewable Portfolio Standard (RPS) and, therefore, should remain unchanged; 3) LCFS B&C provisions should remain the same until there is equivalent policy support for biomethane in the industrial sector; (4) CARB should establish a complementary policy that incentivizes the transition of biomethane into other sectors to support and advance the market for biomethane.

1) Avoided methane crediting is necessary to support methane capture projects

SoCalGas appreciates that at the workshop staff recognized the need for more methane capture projects in California to reduce short-lived climate pollutants (SLCP) emissions as required by Senate Bill (SB) 1383 (Lara, 2016). Staff also noted that biomethane is unlikely to be cost-competitive with fossil gas without programs, such as the LCFS, that provide financial support that values the climate benefits from avoided methane emissions.¹ Currently, avoided methane crediting provides a pathway for payback on initial capital costs of methane capture projects and keeps these projects viable; yet staff is still proposing that avoided methane crediting only be available until 2040². Limiting avoided methane credits to ten years is insufficient to support existing methane capture projects and motivate new ones. Indeed, some mid-sized dairy digesters need 30 years or more of operation at current market prices before they can achieve payback.

Financing decisions and support for methane reduction-to-renewable natural gas (RNG) projects require policy certainty, and markets will fail to attract new investment if regulators propose a new framework that invalidates emissions benefits 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.³ Given that methane capture projects need this incentive, CARB should not phase out credit for avoided methane emissions from biomethane before there is a viable alternative market to ensure that California's progress on SLCP reductions does not slow down or reverse. We support the policy direction in CARB's 2022 Scoping Plan for long-term deployment and use of biomethane for hydrogen production and expanding use of biomethane for stationary sources. To maintain this momentum, however, the state needs to establish a clear pathway with concrete milestones and the appropriate offramps prior to considering phasing out avoided methane credits.

2) Biomethane Book & Claim Eligibility meets the spirit of the RPS and, therefore, should remain unchanged

As presented at the workshop, while theoretically it seems sensible to align B&C with the RPS to apply the same rules for LCFS and RPS out of state (OOS) biomethane projects, it does not necessarily work well in practice. This is evidenced by the fact that to-date there have been no OOS biomethane projects certified by the CEC since those deliverability provisions were included in the Seventh Edition of the RPS Guidebook.⁴ Verification that injection occurs in a pipeline that flows 50 percent of the time toward California is an onerous and unclear rule that leads to

¹ CARB Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard, February 22, 2023.

² CARB Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard, February 22, 2023, slide 32.

³ CARB, California Climate Investments 2022 Mid-Year Data Update, September 2022, indicates that investments in dairy digesters and diverted organic waste cut carbon emissions by approximately \$9 and \$10 per ton, respectively. CARB's 2021 Annual Report on Climate Investments also showed that investments in organic waste to energy were the most cost-effective of the State's climate investments.

⁴ Seventh Edition of the Renewable Portfolio Standard Eligibility Guidebook (CEC-300-2013-ED7-CMF) was the first to include provisions from Assembly Bill 2196, Chesbro, Chapter 605, Statutes of 2012, <https://efiling.energy.ca.gov/getdocument.aspx?tn=70867>

uncertainty. It is unclear if this verification process would have to be conducted on a year-to-year basis, which would be objectively difficult given that gas flow changes based on supply and demand. Even if there was an easier method to make such an attestation, gas flow could change during any given year and all of the credits created for that year could be unnecessarily voided. Early RPS rules for OOS generation were created in order to encourage additionality. Many wind and biomass projects were incentivized in the 1980s through the Public Utility Regulatory Policies Act (PURPA) and the California legislature wanted to avoid paying a premium for tradeable renewable energy certificates (TRECs) from projects that were already in operation. Therefore, the RPS limited TRECs for compliance and created a firmed and shaped resource bucket, which followed typical protocols for balancing authorities to swap electricity. The gas system inherently does not operate similarly, nor does it have the same accounting mechanisms as the electricity system. Power and gas markets are inherently different. In the gas market, we do not track flows from the production basin to the delivery point (on the power side, for example, e-tags are used to track electrons from source to sink). This would require a change in how gas supplies are traced and managed. Therefore, it is onerous and possibly not feasible to verify natural gas flows in the pipeline on an annual accounting basis.

Additionally, there is no need to eliminate biomethane imports to reduce the attractiveness of Natural Gas trucks (NGV), as CARB's vehicle rules (e.g., Advanced Clean Trucks, Advanced Clean Transit, Advanced Clean Fleets, etc.) are already creating a damper on the growth in NGV deployment. If heavy-duty (HD) and medium-duty (MD) Zero Emission Vehicle (ZEV) options emerge rapidly—due to CARB's vehicle rules—NGVs will begin to phase out, as predicted by CARB's Scoping Plan analytics and the assumptions in the California Transportation Supply (CATS) Model. Lastly, the state will need this biomethane to decarbonize hard-to-abate sectors of California's economy including cement and steel manufacturing. It also might be needed for electric reliability or as a feedstock for renewable hydrogen. We believe it is in the state's best interest to keep biomethane flowing into California so it can be repurposed at a later date for different sectors of the economy. The current LCFS B&C provisions encourage additionality and have been successful at creating projects that would not otherwise be built; therefore, these B&C provisions meet the spirit of the RPS and should not be modified.

3) LCFS B&C provisions should remain the same until there is equivalent policy support for biomethane in the industrial sector

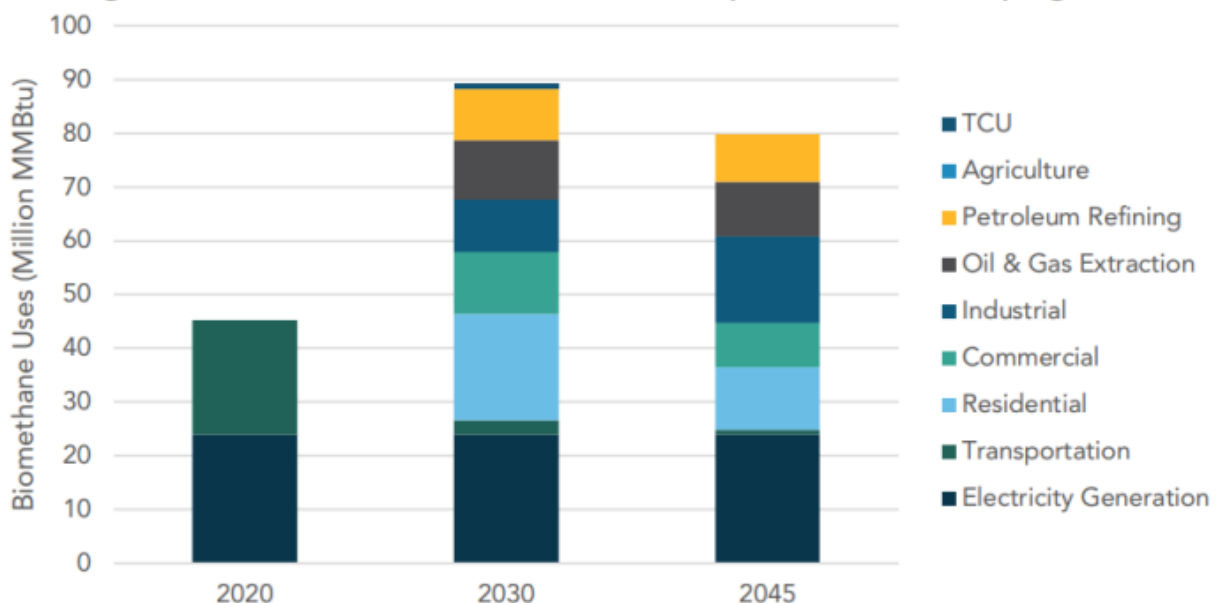
SoCalGas respectfully cautions against taking actions that, while well-intended, may have unintended consequences. Staff indicated that Figure H-4 below from the 2022 Scoping Plan shows that biomethane needs to grow rapidly and be deployed to more end-uses. While the Scoping Plan does discuss this transition of biomethane throughout the document, Figure H-4 demonstrates the end uses for the estimated **in-state supply** of biomethane for 2030 & 2045.⁵ It is clear from this figure that in 2030 the in-state supply of biomethane is expected to be minimally used in transportation, yet low-NOx NGVs purchased in the coming years to meet CARB's Omnibus Rule standards will remain in operation in 2030.⁶ If CARB enacts these changes to the B&C provisions

⁵ See 2022 Scoping Plan Appendix H (AB 32 GHG Inventory Sector Modeling), page 67.

⁶ Low-NOx Natural Gas trucks are currently the only commercially available vehicles that meet Omnibus standards.

we anticipate that low-carbon fuels that meet the proposed criteria will not be readily available for NGVs, and the transportation sector will have to rely on fossil natural gas which is counter to LCFS and carbon reduction policies. Currently SoCalGas procures biomethane for 38 NGV refueling stations to fuel its vehicles, which are the only carbon negative vehicles available and in use today.⁷ An investment of a billion dollars in Optional Low-NO_x RNG trucks in 2024 would generate 3.1 times more black carbon reductions, 2.8 times more lifecycle GHG reductions, and 2.9 times more tailpipe NO_x reductions (needed to meet Clean Air Act Requirements) in comparison to the equivalent investment in Battery Electric trucks.⁸ The 2022 Scoping Plan concludes that biomethane will continue to play a targeted role in the transportation sector and while SoCalGas supports the transition of biomethane to hard-to-decarbonize sectors, until the market evolves and more biomethane is produced, and supply more closely matches demand it would be premature to adopt policies that limit the procurement of available biomethane.

Figure H-4. Biomethane Use in California by Sector, 2022 Scoping Plan



If CARB makes the intended modifications to the B&C allowance in the LCFS regulation, it could cause further uncertainty in the market or serve to redirect current out-of-state biomethane elsewhere. With these restrictions only in California, biomethane could still be used as transportation fuel in other jurisdictions outside of California where it may continue to earn dual credits: federal credits under the Renewable Fuel Standard Program (RFS) and possibly credits from other states (e.g., under Oregon’s LCFS program). Furthermore, the proposed changes to B&C eligibility would restrict the supply of biomethane available to the state, which may be necessary to help decarbonize the hard to abate sectors, like certain industrial and manufacturing applications. Once biomethane is eliminated from the LCFS, it will not be available for the hard-to-abate sectors and infeasible to retract. Biomethane policies today should focus on increasing

⁷ See [Renewable Natural Gas Continues to Flow at SoCalGas Fueling Stations | SoCalGas Newsroom](#)

⁸ See “SoCalGas Comments on the Proposed 2022 State Strategy for the State Implementation Plan,” March 4, 2022, available at: <https://www.arb.ca.gov/lists/com-attach/28-draft2022statesip-ws-VCCa1EzUmBXPVA3.pdf>

both production and demand by allocating funds for developer incentives and consumer programs for greater end-uses. The current LCFS B&C provisions allow for consistent claims in biomethane volume across the RFS and the LCFS. Deviating from this approach for imports into California's transportation sector may result in unintended consequences, while discouraging project developers, lenders, and suppliers from doing business with California. Fewer financially viable projects, misalignment in claims, and administrative confusion at reporting entities, are just a few examples of these unintended consequences. Therefore, CARB should ensure that biomethane B&C provisions remain until there is equivalent policy support for biomethane in the hard-to-abate sectors.

4) CARB should establish a complementary policy that incentivizes the transition of biomethane into other sectors to support and advance the market for biomethane

During the workshop, CARB staff acknowledged hearing concerns from stakeholders that a transition out of transportation without a complementary policy to incent biomethane use in other sectors can be counterproductive to investment in methane capture projects altogether. Staff acknowledges that this conversation about the treatment of biomethane under the LCFS is just the first part of the equation. We expect that complementary policies in the future can also value methane reductions and support biomethane demand in other sectors.⁹ While staff recognized the need for a complementary program and suggested that they expect something in the future, one does not exist currently, and such a program is necessary to support and advance the market for biomethane.

California's industrial sector accounts for 33 percent (or 661 billion cubic feet) of the State's natural gas consumption, contributes 23 percent of the State's GHG emissions, and has the second highest emissions reduction potential for meeting the 2030 targets as set forth in SB 350.¹⁰ To incentivize the use of biomethane in other end sectors, CARB could expand the LCFS program outside of transportation or use the LCFS program as an example to develop and adopt a new Industrial Clean Fuel Standard program. 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 between electrification, procuring low- and zero-carbon and carbon-negative fuels, utilizing carbon capture and sequestration, and/or improving energy efficiency. An Industrial Clean Fuel Standard would achieve significant reductions at least cost by enabling compliance flexibilities and harnessing technological innovation.

Without initiating a process to develop an industrial clean fuel standard type of program, it is premature to place restrictive rules on the LCFS that could cause projects to stall or sell their fuel elsewhere. The current LCFS program is providing critical support to the biomethane market.

⁹ CARB Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard, February 22, 2023.

¹⁰ California industrial energy efficiency market characterization study, XENERGY Inc., December 2001, available at <http://www.calmac.org/publications/California%20Ind%20EE%20Mkt%20Characterization.pdf>.

Because a significant amount of biomethane usage today is occurring in the transportation sector, the LCFS program holds continued importance as the State explores opportunities to incentivize biomethane use in other sectors. Competitive pricing and availability of supply will be critical when looking to expand biomethane usage to other hard-to-abate sectors. For these reasons, SoCalGas recommends that discussions on the potential development of an Industrial Clean Fuel Standard or an expansion of the current LCFS program to include industrial stationary sources should take place in parallel with ongoing support provided for biomethane through the current LCFS.

Conclusion

SoCalGas appreciates the opportunity to provide comments and engage with CARB and stakeholders to improve the LCFS Program. SoCalGas is committed to a collective, collaborative transition to cleaner energy, and we look forward to further collaboration and future workshops. A well-designed plan, incorporating biomethane, will favorably position the State toward a clean, resilient, and reliable energy backbone to fortify California's future.

Respectfully,

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