

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Adopt
Biomethane Standards and
Requirements, Pipeline Open Access
Rules, and Related Enforcement
Provisions

Rulemaking 13-02-008
(Filed February 13, 2013)

**BIOENERGY ASSOCIATION OF CALIFORNIA COMMENTS ON THE
ASSIGNED COMMISSIONER'S RULING SEEKING COMMENTS REGARDING
THE RENEWABLE GAS STANDARD PROGRAM AND DECISION 22-02-025 ISSUES**

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The Bioenergy Association of California (BAC) submits these Comments on the Assigned Commissioner's Ruling on the Renewable Gas Standard and Decision 22-02-025.¹ BAC appreciates the thoughtful and thorough review provided in the Assigned Commissioner's Ruling (ACR) and the questions that it poses. BAC agrees that it is appropriate to reconsider several issues in the Renewable Gas Standard (RGS) program and to revise some of the requirements to meet the objectives identified in the

¹ Assigned Commissioner's Ruling, filed June 10, 2024, in R.13-02-008.

ACR: reducing market barriers, improving alignment with external regulatory goals, and streamlining procurement.²

Senate Bill 1440 (Hueso, 2018), the authorizing legislation for the RGS program, makes clear that the over-arching priority of the program is to help meet the Short-Lived Climate Pollutant (SLCP) reduction requirements of SB 1383 (Lara, 2016). The very first goal of SB 1440 is to ensure that RGS targets are a cost-effective means of reducing “short-lived climate pollutants pursuant to Section 39730.5 of Health and Safety Code,” which is a reference to SB 1383.³ SB 1383 is, in turn, entirely focused on the reduction of SLCP emissions in California, including the requirement to reduce California’s methane emissions 40 percent and black carbon emissions 50 percent by 2030. SB 1440 contains two other references to the requirements of SB 1383 to reduce in-state emissions of SLCPs. Therefore, any changes proposed to the RGS should be focused on accelerating progress in meeting California’s SLCP emissions reductions, as required by SB 1383.

To achieve these objectives, BAC urges the Commission to:

- Continue to focus the RGS on biomethane that is captured or produced in California to ensure that it reduces in-state emissions of Short-Lived Climate Pollutants and other in-state pollution, as required by SB 1440.
- Replace the current price tiers and carve-outs for particular biomethane types with a carbon intensity focused program to incentivize the greatest reductions in SLCP and GHG emissions.
- Maintain minimum contract lengths, rate-base interconnection, and clarify which environmental attributes are included in the purchase price to accelerate biomethane procurement and SLCP reductions.
- Replace the combustion ban with requirements for ceramic air filters and other Best Available Control Technologies that can provide equal or greater protections for air quality than a ban on combustion.

² ACR at page 1.

³ Public Utilities Code section 651(a)(1).

BAC's answers to the specific questions in the ACR are below.

I. THE BIOENERGY ASSOCIATION OF CALIFORNIA

BAC represents more than 100 public agencies, local governments, private companies, utilities and others working to convert organic waste to energy to meet the state's climate change, clean energy, air quality, landfill diversion, and wildfire mitigation goals. BAC members are converting organic waste into pipeline biogas, hydrogen, electricity, combined heat and power, and more. BAC's public sector members include cities and counties, Tribes, air quality and environmental agencies, waste and wastewater agencies, community and environmental groups, public research institutions, and a publicly owned utility. BAC's private sector members include energy and technology firms, project developers, investors, consulting firms, an investor-owned utility, waste and agricultural companies, waste haulers, and more. Many BAC members are developing or operating pipeline biomethane projects in California and have first-hand experience with what is working and what needs revision.

II. ANSWERS TO SELECT QUESTIONS IN THE ACR

BAC's answers to specific questions in the ACR are below.

SECTION 2.1 - ALIGNMENT WITH SB 1383

This section raises several issues and questions related to "SB 1383 procurement," but uses that term to refer to the requirement of SB 1383 to divert organic waste from landfills. This is quite confusing since SB 1383 includes other sources of biomethane in addition to landfills and other types of organic waste, such as dairy manure, and also requires reductions in black carbon emissions.⁴ BAC urges the Commission to refer, instead, to "the diverted organic waste requirement of SB 1383" when focusing on the

⁴ Health and Safety Code section 39730.5.

landfill diversion requirement of SB 1383 and CalRecycle’s regulations to implement that requirement.

A. Should the short-term target procurement restrictions be relaxed to mirror medium-term target procurement?

BAC agrees with the ACR that diversion of organic landfill waste is behind schedule, but should begin ramping up in the near term. BAC recommends, therefore, pushing back the procurement targets, but not all the way to 2030. Having a procurement target that is still six years away is not enough to stimulate market growth now and will not provide the near-term market needed to help achieve the waste diversion requirements of SB 1383. The Low Carbon Fuel Standard has shown clearly that without near-term targets, the market will largely plateau or even contract.

Rather than moving the short-term procurement target all the way to 2030, BAC urges the Commission to set an interim target in 2027 or 2028 and to maintain the 2030 procurement target since 2030 is the deadline for the over-arching methane and black carbon reduction requirements of SB 1383.

B. If short-term procurement restrictions are relaxed to mirror medium-term procurement, how should prioritization of SB 1383-derived biomethane be ensured without inducing artificial price inflation? Should the SBPM be modified to reflect this prioritization?

Given the slow pace to date of pipeline biomethane development, BAC urges the Commission to remove the preference for biomethane from diverted organic waste and, instead, adopt a carbon intensity-based approach for biomethane procurement (see Section 2.8 below) that includes all organic waste sources whose capture or conversion to biomethane reduces SLCP emissions in California, as required by SB 1440.⁵

C. Should feedstocks have to adhere to CalRecycle regulations and be verified by a third-party verification body accredited by CARB to be considered “SB 1383-derived” for RGS procurement?

Requiring third-party verification and CARB accreditation is not necessary to ensure compliance with SB 1383. Local jurisdictions are responsible for meeting the waste

⁵ Public Utilities Code section 651(a)(1).

diversion requirements of SB 1383 and must either procure the alternative product made with diverted organic waste or contract with a third party to procure that product. Where diverted organic waste is converted to pipeline biomethane, the local jurisdiction would have to contract with the biomethane producer or the procuring utility to demonstrate compliance with CalRecycle's regulations. That procurement contract should be sufficient to verify that pipeline biomethane from diverted organic waste is in compliance with CalRecycle's regulations to implement SB 1383.

Adding CARB accreditation and/or third-party verification requirements would only add expenses and delays to the RGS and should not be necessary when local jurisdictions must already ensure that procurement products meet the requirements of CalRecycle's regulations. Local government contracts should provide sufficient verification without adding additional and costly requirements.

SECTION 2.2 – CONTRACT TIMELINES

BAC agrees with parties that securing investment capital for pipeline biomethane projects is challenging and that it depends in part on the ability of projects to secure long-term contracts.⁶ BAC also agrees that given the long lead times for these projects, having a 2040 deadline is or will soon be a barrier to achieving the program goals.⁷

A. How should procurement be structured to take advantage of potential biomethane cost reductions as the market matures? Should short-term and medium-term target timing be modified to reflect these changes?

At present, the biggest challenge is to rapidly accelerate biomethane procurement to reduce SLCP emissions in California, as required by SB 1383. Prices will not go down until the market achieves much larger scale. Trying to anticipate when that will be or how to take advantage of cost reductions is premature when the market is a long way off from maturity. In addition, contract prices largely reflect capital costs and once those are invested, they must be amortized over the 15-year or longer contract. In other words, future contracts will likely be at lower costs, but not until there is sufficient market

⁶ ACR at page 6.

⁷ Id.

maturity and that requires more robust prices in the early years. Until market participation picks up pace substantially, it is premature to consider ways to take advantage of dropping prices.

B. Should the 2040 deadline be extended or eliminated, to allow for contracts to fulfill 15 years of biomethane delivery?

Yes, the 2040 deadline should be removed. All projections, including the *2022 Climate Change Scoping Plan*, assume continued gas use after 2040. BAC agrees with the ACR that having a 2040 deadline will result in shorter and shorter contracts that prevent the market growth needed to see prices go down.⁸ In addition, shorter contract timelines will likely drive down program participation and make it harder to decarbonize remaining gas use by residential and small business customers.

D. How could program flexibility be added to avoid biomethane procurement in excess of customer demand?

BAC disagrees with the ACR that electrification could reduce demand for biomethane below the amount called for in Decision 22-02-025.⁹ In fact, the Commission considered rates of electrification before issuing D.22-02-025, which only requires procurement of 72.8 bcf annually by 2030, about 12 percent of core customers' gas use.¹⁰ Even if many residences and small businesses are electrified, it is highly unlikely that California will achieve 90 percent or greater electrification in the next several decades, so a target of 12 percent biomethane is a reasonable target. The California Air Resources Board recognizes this in the *2022 Climate Change Scoping Plan*:

“To support the transformation needed, we must build the clean energy production and distribution infrastructure for a carbon-neutral future. The solution will have to include . . . utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes.”¹¹

In fact, the *2022 Climate Change Scoping Plan* assumes that residential customers can continue to buy gas powered appliances until 2035 and commercial customers can

⁸ ACR at page 7.

⁹ Id.

¹⁰ Decision 22-02-025, at page 32.

¹¹ California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality*, at page 9.

continue to buy gas appliances until 2045, meaning residential and small business customers will continue to need gas for several more decades at a minimum.¹² The Scoping Plan assumes a reduction in fossil gas use by residential and small business customers, but does not assume that gas use is eliminated altogether. Instead, the Scoping Plan calls for increased use of biomethane and hydrogen to decarbonize remaining gas use.¹³

Given continued gas demand by core customers and the need to decarbonize that gas, the Commission should not reduce the procurement target of 72.8 bcf of biomethane, which will not exceed core customers' gas demand for at least the next several decades.

D. How should the Commission weigh the impacts of developing biomethane on other policy goals, such as electrification?

Biomethane procurement does not impede electrification. As noted above, none of California's clean energy and climate plans assumes 100 percent electrification in the next several decades, if ever. On the contrary, the Air Board assumes some continued gas use and calls for increasing biomethane and hydrogen to decarbonize the gas sector. When electrification achieves much higher rates, biomethane production can be transitioned from core customers to provide dispatchable power and to decarbonize hard to electrify end uses. As the Scoping Plan makes clear, there will continue to be need for biomethane long into the future, so developing biomethane projects now will be valuable even if California electrifies many end uses. In fact, developing the biomethane market now will facilitate its use in the future for difficult to decarbonize and other end use sectors.

SECTION 2.3 - INTERCONNECTION COSTS

A. Should additional funds be allocated toward the existing BMI Program? If so, what should the funding source(s) be? Should future BMI

¹² Id. at page 76.

¹³ Id. at pages 2, 78, 139, 206-207.

subsidies be made exclusively available for production facilities selling biomethane for the RGS program?

Yes, the Commission should allocate additional funds to BMI unless the Commission decides to rate-base interconnection costs. Interconnection costs are a significant barrier to developing California’s biomethane potential, which is required by numerous laws, including AB 1900 (Gatto, 2012) and SB 1383 (Lara, 2016).¹⁴ The California Air Resources Board, in the *Short-Lived Climate Pollutant Reduction Strategy*, calls on the Commission and other agencies to accelerate interconnection and reduce its cost in order to accelerate SLCP reductions. As the *SLCP Reduction Strategy* found:

“Stubborn barriers remain, including connecting . . . biogas projects, which have slowed previous efforts to reduce emissions of SLCPs and capture a wide array of benefits. These barriers are not insurmountable, and now is the time to solve them. State agencies, utilities, and other stakeholders need to work immediately to identify and resolve remaining obstacles to . . . injecting renewable natural gas into the pipeline, as called for in SB 1383.”¹⁵

BAC recommends that the Commission consider rate-basing biomethane interconnection. If it does not adopt rate-basing, then the Commission should allocate cap and trade revenues to reduce the costs. This is appropriate since the Air Board has found repeatedly that investments in organic waste to energy projects are among the most cost-effective of all investments to reduce carbon emissions.¹⁶ Since SLCPs are climate super pollutants, investing cap and trade revenues in projects that reduce SLCP emissions – including interconnection for pipeline biomethane projects – would be a very appropriate and cost-effective way to reduce carbon emissions.

Coupled with rate-basing, the Commission should also consider setting strict timelines for interconnection as delays are also costly for projects. The Commission should also consider options for projects themselves to do the interconnection or to contract with third parties to do the interconnection to reduce delays and ensure continued competition in the market.

¹⁴ Public Utilities Code section 399.24(a) and Health and Safety Code section 39730.8.

¹⁵ California Air Resources Board, *Short-Lived Climate Pollutant Reduction Strategy*, adopted March 2017, at page 4.

¹⁶ California Air Resources Board, *California Climate Investments 2022 Mid-Year Data Update*, September 2022, Table 2, pages 17-18.

B. In addition to or as an alternative to the BMI Program, should the Commission consider other forms of funding mechanisms for recovery of biomethane production facility interconnection investment costs -- as examples, either through recovery in rates pursuant to Pub. Util. Section 784.2, or through Cap-and-Trade funds, or through other forms of funding?

Yes. The Commission should consider rate-basing biomethane interconnection costs and should also allocate cap and trade revenues to interconnection since pipeline biomethane helps to reduce SLCP emissions, which are the most damaging climate pollutants. In addition, AB 2313 (Williams, 2016) requires the Commission to consider rate-basing interconnection costs for pipeline biomethane¹⁷ and AB 1900 (Gatto, 2012) requires the Commission to adopt policies and programs to promote the in-state production and distribution of biomethane.¹⁸ There would be many advantages of rate-basing interconnection, including avoiding the 24% Income Tax Component of Contributions and Advances (ITCCA)

C. Should any of the possible interconnection funding mechanisms discussed in the immediately preceding Question B be limited to facilities that will be exclusively providing biomethane for RGS procurement (e.g., not facilities also participating in the Low Carbon Fuel Standard (LCFS) program market, or selling to non-core customers, or selling biomethane outside of the RGS)? Alternatively, should possible interconnection funding mechanisms be adjusted to take into account biomethane producers' non-RGS engagement?

Interconnection incentives and/or rate-basing should not be limited to RGS procurement. Any instate production of biomethane helps to reduce SLCP emissions from organic waste and the use of biomethane helps to decarbonize California's economy, whether or not the biomethane is used by core customers as part of the RGS program.

D. How can we ensure that biomethane producer savings associated with any possible interconnection subsidies would result in lower biomethane procurement costs?

No response at this time.

¹⁷ Public Utilities Code section 784.2.

¹⁸ Public Utilities Code section 399.24(a).

E. Should any of the possible interconnection funding mechanisms discussed in the preceding Question 3.2 be modified to account for specific characteristics of a production facility -- as examples, based upon facility size, or facility location?

No response at this time.

F. Should the SBPM be modified to take into account interconnection costs and possible subsidies?

No response at this time.

SECTION 2.4 – REMOVAL OF ADVICE LETTER TIERS

The ACR points out that the Advice Letter tiers may have created confusion and sent inadvertent price signals in the biomethane procurement process.¹⁹ BAC agrees and urges the Commission to remove the Advice Letter tiers and replace them with a pricing mechanism that is based on carbon intensity. That will best further the goal of SB 1440 to cost-effectively reduce SLCP and GHG emissions. Carbon intensity should, therefore, be the basis for biomethane pricing with lower carbon intensity and carbon negative forms of biomethane receiving the highest value under the RGS.

A. Should all RGS contracts be submitted to the Commission for approval as Tier 2 Advice Letters in order to avoid sending potentially inadvertent price signals to the market?

BAC supports the proposal to have all RGS contracts submitted for approval as Tier 2 Advice Letters, provided the Commission provides more explicit guidance about how it will assess contract price reasonableness. Using the three price tiers from D.22-02-025, the Commission could adopt guidelines for contract prices that are based on carbon intensity as follows:

- Contract prices under \$26/ MMBtu (the social cost of carbon) will be approved based on the social costs of biomethane.

¹⁹ ACR at page 11.

- Contract prices above \$26/MMBtu will be considered for biomethane that is zero carbon or carbon negative on a lifecycle basis. The lower the lifecycle carbon intensity, the higher the price that the Commission will consider approving.
- The Commission should reconsider the social cost of carbon every three years or more often if the Federal Interagency Working Group increases or decreases the amount by more than 10 percent.

B. Should there instead be Advice Letter tiers established based on contract size in terms of MMBtus procured? What should those specific tier thresholds be? Would this send signals to the market that we should avoid?

Contract size or project size are unrelated to the value of the biomethane procured pursuant to SB 1440, which is focused on reductions of SLCP and GHG emissions. For other price components, such as interconnection costs or incentives, project size and costs per MMBtu may be relevant, but not for the value of the biomethane itself. As noted above, prices should be based on lifecycle carbon intensity since carbon reduction is the goal of SB 1440.

SECTION 2.5 – COST CAPS

BAC urges the Commission not to set a hard cost cap at this point and, instead, to do what the Commission did in D.14-12-081 for the BioMAT program. In that Decision, the Commission established a price point which, if reached, required the Commission to undertake a mandatory program review to see if the price was justified and if other changes to the program were needed.²⁰ This is a very reasonable approach for a relatively new industry with a small number of projects to date and where prices are still high compared to the fossil fuel alternative. This is also a reasonable approach since the social value of methane and the urgency of reducing SLCP emissions are only increasing.

²⁰ Decision 14-12-081, adopted in R.11-05-005, at pages 62-63 .

As the Commission stated in D.14-12-081, “Imposing a firm price cap on the bioenergy FiT is premature, and may ultimately be unnecessary.”²¹ The Commission reached that conclusion because the small-scale bioenergy market – the focus of the BioMAT program – was still very immature and it would have been very difficult to predict prices.²²

These same issues apply to the pipeline biomethane market, which is still far too new to set price caps without potentially influencing future prices and stifling competition. BAC urges the Commission not to set a price cap at this time, but to consider adopting a trigger point (which could be a comparison to the value of biomethane under the Low Carbon Fuel Standard, which is entirely based on carbon intensity, or the federal Renewable Fuel Standard) at which it will review program prices and benefits.

SECTION 2.7 – COMBUSTION FOR ONSITE POWER DEMAND

BAC agrees with the ACR that the current ban on combustion for onsite power is impeding project development. At least one large project, the biomass pilot project initially proposed by SoCalGas, failed in large part because the combustion ban added more than \$100 million to the project costs. The combustion ban is also challenging for wastewater treatment facilities that often have combustion generators onsite that are under-utilized. It is not cost-effective for those facilities to have to buy new non-combustion technologies when they have existing combustion capacity onsite.

In addition, new emissions control technologies such as ceramic catalytic filtration, can provide far greater reductions in emissions than traditional emissions control systems. Ceramic air filters can reduce NOx emissions by 90 percent or more and particulate matter emissions, including toxic air contaminants, by 97 percent or more.²³

²¹ Id. at page 62.

²² Id.

²³ Kwon, H.J., Yang, D.S., Koo, M.S. *et al.* “Long-lifetime water-washable ceramic catalyst filter for air purification,” *Nat Commun* **14**, 520 (2023). <https://doi.org/10.1038/s41467-023-36050-w>.

BAC urges the Commission to remove the ban on combustion generation for onsite power needs and replace it with a requirement for new projects to use ceramic air filters or other equivalent BACT (Best Available Control Technology) as appropriate.

SECTION 2.8 – SBPM MODIFICATIONS

The Commission should replace the Standard Biomethane Procurement Methodology (SBPM) with a carbon intensity-based pricing structure, much like the Low Carbon Fuel Standard where prices reflect the carbon intensity of the biomethane (or other fuels) that is procured. SB 1440 is focused on biomethane procurement to reduce SLCP emissions in compliance with SB 1383, in particular methane and black carbon. In other words, the RGS is fundamentally about reducing carbon emissions in California so it would be far more appropriate to base pricing on the lifecycle carbon intensity of biomethane.

Moving the RGS to a carbon intensity-based program would also encourage projects to maximize carbon reductions by using renewable fuels and most efficient vehicles for feedstock transportation, using renewable fuels and lowest emitting technologies for onsite power needs, and adding carbon capture and sequestration where appropriate. By focusing pricing on carbon intensity, the RGS would encourage BECCS – bioenergy with carbon capture and sequestration – which the Air Board has determined will be necessary to generate the carbon negative emissions needed to reach carbon neutrality by 2045, as required by state law.²⁴

SECTION 2.9 – RGS OUT OF STATE PROCUREMENT CONSIDERATIONS

This section asks important questions about what types of out of state biomethane could be eligible for the RGS, but begins with an incomplete summary of the eligibility requirements of SB 1440. SB 1440 requires that out of state biomethane is either 1) delivered to California through a dedicated pipeline, or 2) injected into a common carrier pipeline that flows toward the end user in California for which the biomethane was

²⁴ California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality*, at page 96, Table 2-3, and page 120.

produced.²⁵ If injected into a common carrier pipeline that flows toward the end user in California, then SB 1440 also requires that the “**capture or production of biomethane**” directly results in those environmental benefits in California.²⁶

Taken together, these eligibility requirements ensure that biomethane procured for California customers is either a) physically delivered to California through the dedicated pipeline option, or b) provides direct benefits to California’s environment from the biomethane capture or production. In other words, in the first option, out of state biomethane that is physically delivered in a dedicated pipeline displaces fossil gas use in California. The second option ensures that where delivery is not assured (because the biomethane is injected into a common carrier pipeline), then its capture or production must provide benefits to California’s environment because the biomethane itself may or may not displace fossil gas instate.

The phrase “capture or production of biomethane” is critically important to the eligibility requirements for biomethane because the Legislature recognized that the benefits of biomethane compared to fossil gas come from its capture (where it would otherwise vent to the atmosphere or be flared) or production (to avoid methane, black carbon and other emissions from organic waste). In other words, it is the capture and production of biomethane that reduces SLCP, GHG and other harmful emissions.

The questions in Section 2.9 should all be framed around the capture or production of biomethane, which is what SB 1440 requires to directly result in the benefits to California’s environment.

A. How should a definition of what constitutes local environmental benefits according to SB 1440 be developed?

SB 1440 provides a clear definition of the local environmental benefits that eligible biomethane must provide. Unless the biomethane is delivered to California in a dedicated pipeline, then its capture or production must provide one of the environmental benefits enumerated in SB 1440. The legislation requires that:

²⁵ Public Utilities Code section 651(b)(3).

²⁶ Public Utilities Code section 651(b)(3)(B)(ii).

“The seller or purchaser of the biomethane demonstrates that **the capture or production of biomethane** directly results in at least one of the following environmental benefits to California:

(I) The reduction or avoidance of the emission of any criteria air pollutant, toxic air contaminant, or greenhouse gas in California.

(II) The reduction or avoidance of pollutants that could have an adverse impact on waters of the state.

(III) The alleviation of a local nuisance within California that is associated with the emission of odors.”²⁷

SB 1440 is quite clear that the capture or production of biomethane must reduce climate, air, water or odor pollution in California. In other words, the RGS should simply use the definition of local environmental benefits that is provided by SB 1440 itself.

B. What types of out-of-state projects could provide local environmental benefits to CA? For example, could a project in a neighboring state that uses CA feedstocks and provides biomethane to CA be eligible? What would those benefits be? What additional issues should be considered?

The types of out of state projects where the capture or production of biomethane benefits California’s environment will generally be projects that use organic waste generated in California or in a neighboring state. Examples include:

- Biomethane generated from forest or agricultural waste in a neighboring state where the burning of that waste or wildfires could cause air or water pollution in California. For example, converting forest thinnings from southern Oregon could reduce air and water pollution in California by reducing pile and burn in Oregon. It would also help to mitigate wildfire risks, which would also reduce the risk of air and water pollution in California. Similarly, converting forest waste from the eastern Sierras to biomethane that is produced in Nevada would help to reduce pile and burn or wildfires in California.
- The conversion of California’s diverted organic waste to biomethane. By helping to reduce landfilling of organic waste in California, an out of state project would help to reduce SLCP emissions and air pollution from landfills in California.
- Converting livestock manure to biomethane in neighboring states where the livestock waste causes pollution or odors that affect California.

²⁷ Public Utilities Code section 651(b)(3)(B)

C. Should the SBPM be modified to reflect adherence to the definition of local environmental benefits provided to CA?

As noted above, the SBPM should be focused on the lifecycle carbon intensity of projects. It should not try to incorporate environmental benefits, which is a threshold eligibility requirement that all projects must meet unless the biomethane is delivered through a dedicated pipeline. Basing the SBPM on environmental benefits would make pricing extremely complicated and likely subject individual projects to endless litigation.

SECTION 2.10 – ENCOURAGING RGS MARKET PARTICIPATION

The most important changes to encourage market participation are to:

- Simplify the pricing mechanism and base it solely on lifecycle carbon intensity, removing the current price tiers;
- Direct utilities to procure all eligible biomethane that is below a set price per ton of carbon reduction that increases over time to reflect the social cost of carbon.
- Rate-base interconnection to reduce risks, uncertainty, and high upfront costs for developers (as well as saving ratepayers the costs of the federal transfer tax, as described above).
- Replace the onsite combustion ban with a requirement for new projects to use ceramic air filters or other equivalent Best Available Control Technology.

SECTION 2.14 – LANDFILL ELIGIBILITY REQUIREMENTS

The RGS should remove restrictions on landfill gas. It is a huge potential source of instate biomethane, its capture and use would provide significant benefits for local air quality and the climate, and it would be a relatively low-cost source of biomethane. In fact, the Air Board as part of its landfill methane review, found that additional methane capture and use is needed to reduce leakage and flaring.²⁸ According to the Air Board,

²⁸ CARB workshop slides on landfill methane regulation, May 18, 2023, slide 20.

California flares two-thirds of all the landfill gas that is captured,²⁹ which is equivalent to nearly a billion gallons of gasoline that is just wasted. In addition, recent methane monitoring by NASA's Jet Propulsion Lab has shown that some landfills leak far more methane than was previously assumed.³⁰ The Air Board recommends, instead, maximizing the beneficial use of that landfill gas instead of flaring and has found that an additional 30 to 50 landfills generate enough biogas to be economically converted to energy.³¹

A. Should landfills continue to be required to stop accepting new organic waste to be eligible for RGS procurement? If this requirement is removed, what other modifications should be considered to prevent perverse incentives and support SB 1383 implementation?

SB 1383 requires that 75 percent of organic landfill waste be diverted by 2025 but California is several years to a decade behind in meeting that requirement, so it is premature to limit the RGS to landfills that no longer accept organic waste. That limitation would exclude the vast majority of California's landfills (virtually all open landfills) and prevent the capture and beneficial use of the biomethane generated at those landfills. The RGS will not drive additional landfill disposal or prolong landfilling of organic waste since organic waste diversion is already required by law.

BAC urges the Commission to remove the restriction on landfill gas and to replace it with a carbon intensity-based pricing mechanism to reflect the fact that landfill gas is less expensive than other forms of biomethane, but also much higher carbon intensity on a lifecycle basis. Removing the restriction while ensuring that price of biomethane reflects the lower climate value of landfill gas is the appropriate way to further the goals of SB 1440 and SB 1383.

²⁹ Id. at slide 27.

³⁰ <http://methane.jpl.nasa.gov/>

³¹ CARB workshop slides on landfill methane regulation, May 18, 2023, slide 27.

SECTION 2. 15 – REGULATORY BARRIERS

A. What market barriers exist in the biomethane market? How should they be overcome?

The biggest market barrier is the current pricing mechanism and the uncertainty that it causes. There is no clear rationale for the different Advice Letter tiers and no clear direction to the utilities about if/when to accept projects at different prices. This causes huge confusion and uncertainty in the market. It also means that carbon negative biomethane producers will continue to choose the Low Carbon Fuel Standard since it is based on carbon intensity. The most effective change the Commission could make to the RGS is to replace the Advice Letter tiers and the SBPM with a carbon intensity-based program that is similar to the Low Carbon Fuel Standard, which has been very effective at stimulating the biomethane market.

A second market barrier is the high cost and timeline for pipeline interconnection. In addition to rate-basing those costs, for the reasons presented above, the Commission should adopt timelines for interconnection studies and development.

The Commission should also consider adopting incentives to help projects meet pipeline injection standards, which are the strictest in the country and very expensive to meet.

The Commission should also allocate gas sector Cap and Trade revenues to pipeline biomethane since it reduces SLCP emissions, which is the most urgent, beneficial, and cost-effective measure to address climate change.

B. What regulatory barriers exist in the biomethane market? How should they be overcome?

As noted above, the Commission should revise or remove some of the current hurdles in the RGS, including:

- The 2040 program end date
- The combustion ban
- The exclusion of biomethane from landfills that still accept organic waste

Other regulatory barriers such as long permitting timelines, while significant, are outside the Commission's jurisdiction.

SECTION 2.17 – AVOIDED CO₂e VALUE AS AN RGS PROGRAM METRIC

This section appropriately asks whether the existing RGS accurately captures the value of carbon reductions or avoided carbon emissions. As noted above, carbon reduction – especially SLCP reductions – is the primary focus of SB 1440 and should, therefore, be the metric on which costs are based and assessed. The simplest way to do that would be to convert the RGS to a carbon intensity-based program where prices are a direct reflection of the carbon intensity of the biomethane that is procured. In that way, the lower the lifecycle carbon intensity, the higher the price should be per MMBtu of biomethane. For a carbon reduction program, that is the simplest and most transparent way to price biomethane and to reflect its actual value for reducing SLCP and GHG emissions. It would be far clearer and more transparent than the current SBPM or other mechanisms to “score” solicitation bids. The only score that matters for purposes of SB 1440 (provided the biomethane also meets the other eligibility criteria to protect the environment) is the cost-effectiveness of SLCP and GHG reductions, which would be best reflected in a program that bases price on lifecycle carbon intensity.

SECTION 2.18 – NEGATIVE CARBON INTENSITY ENVIRONMENTAL BENEFITS

BAC agrees with the ACR that the current RGS may not accurately account for or incentivize carbon negative emissions or the lowest carbon biomethane sources. BAC urges the Commission to avoid creating an even more complex and confusing program by separating the physical gas from the carbon benefits or other environmental attributes. The far simpler way to accurately capture negative carbon emissions from biomethane is to convert the program to a carbon intensity-based program. Doing so would avoid the many complex and contentious issues posed in the questions below.

- A. How could more complete valuation of negative carbon intensities of procured biomethane be accomplished? Could the environmental benefit of negative carbon intensities be separated out from the C&T exemption to be traded or incentivized? How would this work within**

existing systems? What modifications could be made to existing systems to facilitate this more complete valuation?

The RGS should be a carbon intensity-based program, which would avoid the need to create complicated new rules to separate carbon credits, C&T exemption, unbundled credits, etc. Using lifecycle carbon intensities from the Low Carbon Fuel Standard and basing procurement prices on the carbon intensity of the biomethane would help to simplify the program while ensuring that it meets the requirement of SB 1440 that the procured biomethane must be a cost-effective means of reducing SLCP and GHG emissions.

B. Should the Commission consider modifying the RGS program to procure only the physical gas, with the environmental attribute staying with biomethane producer?

No. Separating the physical gas from its environmental attributes requires producers to find multiple markets that may or may not be coordinated and would likely increase costs and risks to biomethane producers. Separating the physical gas from the carbon intensity would also undermine the requirement of SB 1440 that biomethane procurement provides a cost-effective means of reducing SLCP and GHG emissions – how can this be calculated if the value of the carbon reductions is sold separately? Separating the gas from other environmental attributes would also make it hard or impossible to know whether the biomethane in fact is providing the benefits to California’s environment that are required by SB 1440. This should, at most, be an interim solution – and only for carbon emissions – while the Commission revises the RGS to be a carbon intensity-based program.

C. How could we ensure that the program continues to maximize, or even increases its focus on, avoided GHG emissions, and therefore benefits ratepayers?

The easiest way to maximize avoided SLCP and GHG emissions – the focus of SB 1440 - is to convert the RGS to a carbon intensity-based program.

D. How could it be ensured that any additional value attributed to biomethane through trading or incentive valuation would be transferred to ratepayers, either as environmental attributes or through lower procurement costs?

If the RGS is converted to a carbon intensity-based program that fully captures the value of avoided SLCP and GHG emissions, then procurement contracts should clearly state that the utility is acquiring all environmental attributes, including all carbon reductions, associated with the biomethane. If the RGS is not converted to a carbon intensity-based program, then the program needs to clarify that the biomethane producer retains the value of all carbon reductions below zero. This is the approach that the Commission took in the BioMAT program where the purchase price is assumed to include the environmental benefits of displacing fossil fuels, but does not capture carbon reductions below zero (negative carbon emissions) since that is an additional benefit that merely displacing fossil fuels does not provide.

The first approach, basing the RGS on carbon intensity, would provide a more accurate and transparent method of assessing the carbon benefits of the program and the cost-effectiveness of associated carbon reductions. If negative carbon emissions are sold separately, it will be hard to impossible to accurately assess whether the RGS is a cost-effective means of reducing SLCP and GHG emissions, as required by SB 1440.

SECTION 2.19 – NEED FOR RGS PROGRAM MODIFICATIONS

The Commission should consider making the program modifications described above, which would better align the RGS with the requirements of SB 1440 to ensure that biomethane procurement is a cost-effective means of reducing SLCP and GHG emissions.

III. CONCLUSION

BAC urges the Commission to move forward with revisions to the RGS as described above. Doing so will accelerate biomethane procurement and increase the number of market participants and projects, which will help to meet California's climate change and air quality goals while reducing costs to ratepayers.

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Respectfully submitted,

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VERIFICATION

I am a representative of the non-profit organization herein, and am authorized to make this verification on its behalf. The statements in the foregoing document are true of my own knowledge, except as to matters which are therein stated on information or belief, and, as to those matters, I believe them to be true.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 19th day of July, 2024 in Quincy, California.

/s/ Julia A. Levin

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