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**RNG Coalition Comments on July 29th, 2020 IEPR Workshop on
Near-Zero Emission Vehicles and Biomethane**

Additional submitted attachment is included below.



August 19, 2020

Commissioner Patty Monahan
California Energy Commission
1516 Ninth Street
Sacramento, California 95814

RE: Comments on July 29th, 2020 IEPR Workshop on Near-Zero Emission Vehicles and Biomethane (Docket No. 20-IEPR-02)

Dear Commissioner Monahan:

The Coalition for Renewable Natural Gas (RNG Coalition) is a California-based nonprofit organization representing and providing public policy advocacy and education for the Renewable Natural Gas (RNG) industry.¹ We advocate for the sustainable development, deployment and utilization of RNG, so that present and future generations have access to domestic, renewable, clean fuel and energy in California and across North America.

The RNG Coalition respectfully submits these comments to the California Energy Commission (CEC) in response to the 2020 Integrated Energy Policy Report (IEPR) workshop held on July 29th, 2020 (the Workshop) to discuss technology, market aspects, and opportunities and challenges of near-zero emission vehicles and low carbon fuels, and specifically biomethane.²

We strongly support the dialogue around the environmental and social impacts of biomethane production, and continued comparison of use cases for biomethane as discussed at the workshop. We recognize that these are complex issues that require strong coordination between CEC, the California Public Utilities Commission (CPUC) and the California Air Resources Board (CARB) to achieve the best possible policy outcome.

We Support all Sustainable End Uses Cases for Biomethane

The RNG Coalition supports the increased development, deployment and utilization of RNG regardless of the feedstock, indiscriminate of the competing technologies used to upgrade raw biogas to biomethane, and for all sustainable end-use applications, but our members need a clear and stable incentive framework to take action and build biomethane production facilities.

¹ Currently our organization focuses primarily on RNG derived from biologic wastes (often called biomethane or biogas that has been upgraded to meet pipeline specifications) but we also support all other sustainable methods of producing renewable gases, including hydrogen. For more information see: <http://www.rngcoalition.com/>

² Biomethane is a direct substitute for conventional natural gas that can be introduced to the gas system in significant volumes safely and quickly. This type of RNG deserves significant near-term attention because the primary method of generating biomethane today—anaerobic digestion (AD)—is a well-proven cost-effective technology available at commercial scale.

Harmonizing the policy discussion around biomethane and focusing on how to develop successful drivers to stimulate stable market for growth in RNG, regardless of end use, has long been a goal of the RNG Coalition. We strongly believe that biomethane has the potential to significantly contribute toward achieving the State's climate change goals, provide a cost-effective opportunity to help decarbonize existing natural gas infrastructure, and drive economic development.

At the workshop many commenters emphasized the importance of following through on the State's existing smart strategies to use the biomethane resource (and other low carbon fuels) to maximize greenhouse gas (GHG) and criteria pollutant emission reductions. Recent growth in RNG supply has been motivated by programs targeting RNG use as a transportation fuel, however, vehicular consumption represents less than one percent of total gas demand in the United States and just slightly over one percent in California.³ Therefore, expanding the use of RNG to other sectors is also of significant interest to our members.

In prior IEPR cycles, transportation was viewed by CEC as a very attractive end use for biomethane and the relationship between promoting RNG use in natural gas vehicles and achievement of the state's Short-lived Climate Pollution (SLCP) reduction goals was well articulated.⁴ If that strategy is shifting in any way in this IEPR cycle, the CEC should continue to provide coordination and leadership on this issue so that other agencies (CARB, CPUC, etc.) remain harmonized on how sustainable RNG growth can best be incentivized across all sectors and shifted toward the highest and best use over time.

The key facts about biomethane have not changed since prior IEPR cycles:

- Society's waste streams create significant methane (a critical short-lived climate pollutant) that must be dealt with in some fashion.
- Using this methane from organic wastes productively, rather than flaring it, both reduces direct emissions of methane from the waste sector and also displaces fossil fuel carbon dioxide emissions in other end use sectors.

We continue to believe that pipeline-injected biomethane projects offer the best optionality to switch the gas between end uses over time (as the highest and best use might conceivably change based on the success of other low-carbon technologies).⁵

³ https://www.eia.gov/dnav/ng/ng_cons_sum_dcunusa.htm

⁴ For example, see the 2017 and 2019 IEPRs.

⁵ We strongly support the 2017 IEPR statement that, "...determining the best destination for renewable gas is not one size fits all; the best end-use outcome can depend on a variety of factors, including feedstock, location, and timing. Priority end uses of renewable gas may evolve as California approaches 2020, 2030, and 2050 goals; as markets transform; and technologies advance. However, the state must seek near-term priorities and the most cost-effective solutions at this time to ensure achieving the 2030 SLCP reduction goals." See page 256 of the 2017 IEPR.

Pipeline-Injected Biomethane Has the Best Local and Lifecycle Criteria Pollutant Performance

Both CARB⁶ and United States Environmental Protection Agency⁷ (US EPA) studies have shown that pipeline injection of biomethane reduces criteria pollutants both locally (relative to a case where the biogas is flared or used in most on-site power generation equipment) and on a lifecycle basis (with additional emission reductions possible depending on end use).⁸ As a reminder of the local air quality benefits of pipeline-injected RNG, see Figure 1 below from a 2016 California-focused study from US EPA entitled *Evaluating the Air Quality, Climate & Economic Impacts of Biogas Management Technologies*.

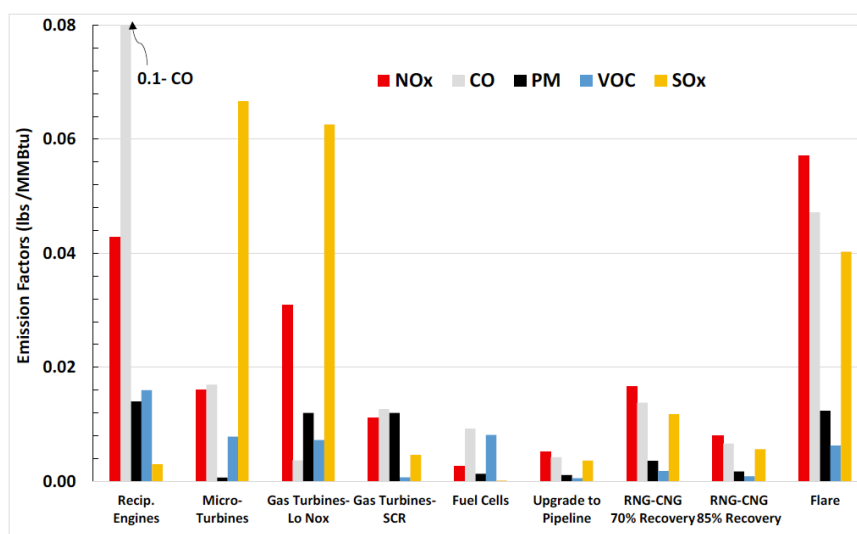


Figure 1. Pipeline-injected Biomethane Provides Local Air Quality Benefits

Water-quality Issues from the Dairy Sector are Unrelated to Biomethane Production

The workshop included a helpful discussion of the water quality issues related to the dairy sector. These issues, while important, are primarily unrelated to biomethane production at dairy facilities. Such issues should be investigated in the 2020 IEPR for context, however, they must be (and are being) addressed by the appropriate regulatory bodies, including the Central Valley Water Board, and not through biomethane-related policies.

Some stakeholders will continue to fundamentally misrepresent the history and reason for water quality impacts and dairy consolidation in California. Dairies face tremendous pressure to reduce and consolidate for economic reasons wholly separate from the development of biomethane policy.⁹

⁶ <https://ww2.arb.ca.gov/sites/default/files/2020-07/dairy-emissions-matrix-113018.pdf>

⁷ <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100QCXZ.PDF?Dockkey=P100QCXZ.PDF>

⁸ For example, when low-NOx natural gas vehicles displace emissions from diesel vehicles.

⁹ <https://www.ers.usda.gov/webdocs/publications/98901/err-274.pdf?v=8460.8>

Further, reducing support for dairy biomethane projects will not delay trends toward dairy consolidation. The CEC should explicitly reject any suggestion to the contrary in the 2020 IEPR.

Programs Driving the Use of Biomethane Should be Built Around Harmonized Lifecycle Greenhouse Gas Performance Metrics

It is useful to design policies that allow for multiple GHG abatement options to compete directly to help minimize the cost of reaching our decarbonization goals. California has established world-leading policies that create competition across a variety of greenhouse gas reduction options. For example, both the Low Carbon Fuel Standard (LCFS) and the Renewable Portfolio Standard (RPS) are technology-neutral, market-based programs that have successfully reduced greenhouse gas emissions.

However, a key difference between these two programs for biomethane is that the LCFS uses a full lifecycle accounting framework to evaluate the greenhouse gas impact of each source of low carbon energy while the RPS currently has an eligibility threshold that, once met, essentially treats all megawatt hours of renewable energy equivalently.

The lifecycle accounting in the LCFS program has many years of proven success in incenting biomethane (and other low carbon biofuels). The same concepts could be used to create a harmonized policy to promote biomethane in other sectors.¹⁰ The CEC, the CPUC and CARB, should examine if an LCFS-like accounting could be used as the backbone to promote biomethane to renewable power (per SB 100, De León, 2018) and to renewable gas (per SB 1440, Hueso, 2018).¹¹ If harmonized with the LCFS, such accounting would help clarify relative incentives to use RNG across transport, power, building, and industrial applications.

Support for Renewable Gases will not Impede Efforts to Promote Electrification

The RNG Coalition has long emphasized that our goal is not to oppose other alternatives that may help to accomplish the changes needed to meet the State's ambitious climate goals—including electrification—where appropriate. The evaluation of RNG supply in Chapter 9 of the 2017 IEPR found that the potential annual supply of biomethane from California feedstocks was between 82 and 351 billion cubic feet (bcf) per year. Comparing that to a total demand of 2,078 bcf of natural gas delivered to California customers in 2018, implies that policies to cut demand for gas through electrification (or other demand-reduction strategies) would have to cut gas demand by 83% from 2018 levels before there would be any conflict.¹²

¹⁰ Full lifecycle accounting also ensures that biomass resources that have poor greenhouse gas performance are disincentivized.

¹¹ SB 1440 bill text here:

https://leginfo.ca.gov/faces/billVersionsCompareClient.xhtml?bill_id=201720180SB1440&cversion=20170SB144098AMD

¹² A more recent update of supply potential from the consulting firm ICF found slightly greater technical potential from CA but does not shift the fundamental conclusion of no conflict with electrification. See:

<https://gasfoundation.org/2019/12/18/renewable-sources-of-natural-gas/>

Many state-funded studies have shown that biomethane, electrification, and other strategies all must work together to reach our GHG reduction goals. Recently, the consulting firm E3 released a new draft study for CARB that evaluates achieving carbon neutrality in California.¹³ This work shows that biomethane is an important strategy across all scenarios.¹⁴

Policies to support RNG can be explicitly designed to also allow fair support for electrification—for example the LCFS is a key driver for both RNG and electrification of vehicles¹⁵—or can, at a minimum, be designed so as not to be a barrier to such technologies. Conversely, ignoring RNG near-term potential to focus only on electrification would be a missed opportunity to address methane emissions from organic wastes.

Biomethane Recommendations for the 2020 IEPR

We believe the 2020 IEPR remains an excellent place for CEC to address the challenging issues associated with biomethane and we encourage CEC to do so. Specifically, building off of our recommendations in the 2019 IEPR process,¹⁶ in the 2020 IEPR:

- *Biomethane should be better integrated into core IEPR analyses*
- *Sector-specific IEPR chapters should each address biomethane where relevant*
- *Although biomethane potential cannot displace all use of conventional gas today, CEC should emphasize that addressing SLCP emissions from the waste sector make biomethane a critical near-term GHG reduction technology*
- *Biomethane is being used to decarbonize transportation today but could also be used in buildings and industry, and—as a storable and dispatchable sources of renewable electricity—biomethane likely has unique value in a highly decarbonized electric system*
- *A clear strategy across all sectors should be articulated, focused on construction of biomethane projects and flexibility rather than on determining the best long-term end use, which may shift over time based on the evolution of other technologies*
- *The IEPR should go beyond the status quo and recommend new policies to ensure biomethane can help reach the State’s emission goals*

Conclusion

We appreciate the ongoing dialogue on biomethane issues. We respectfully ask the CEC and other state agencies to create a strong and stable policy framework that promotes the use of biomethane (and all types of RNG) as one of many important options to help decarbonize California. Thank you very much for your consideration of these comments. Please do not hesitate to contact me directly with any questions or concerns.

¹³ https://ww2.arb.ca.gov/sites/default/files/2020-08/e3_cn_draft_report_aug2020.pdf

¹⁴ https://ww2.arb.ca.gov/sites/default/files/2020-08/e3_cn_report_aug2020.pdf (see slide 12)

¹⁵ <https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-trucks-fact-sheet>

¹⁶ <https://efiling.energy.ca.gov/GetDocument.aspx?tn=230870&DocumentContentId=62511>

Sincerely,

A handwritten signature in dark ink that reads "Sam Wade". The signature is written in a cursive, flowing style.

Sam Wade

Director of State Regulatory Affairs
Coalition for Renewable Natural Gas

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