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RNG Coalition Draft 2019 IEPR Comments

Please see our attached comments.

Additional submitted attachment is included below.

November 27, 2019

RENEWABLE NATURAL GAS

Janea A. Scott
Lead Commissioner
California Energy Commission
1516 Ninth Street
Sacramento, California 95814

RE: Comments on 2019 Integrated Energy Policy Report

Dear Commissioner Scott:

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. 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 publication of the *Draft 2019 Integrated Energy Policy Report* (Draft IEPR). We have made comments in various individual dockets as part of the broader process. We do not fully reproduce all prior comments here, but instead focus on the potential that Renewable Natural Gas (RNG or biogas-derived biomethane) has to address the issues raised in the Draft IEPR.

The Draft IEPR Cites Studies that Show the Importance of RNG Adoption as Part of a Portfolio of Greenhouse Gas Reduction Technologies

We were pleased to see the Draft IEPR contains a very helpful discussion of two studies that have been conducted recently to examine California's long-term decarbonization goals.¹ The first such study is the series of work conducted by the consulting firm Energy and Environmental Economics (E3), some of which was funded by CEC and the California Air Resources Board (CARB).² The second study is the work conducted by the Energy Futures

¹ Draft IEPR, pages 24-32

² E3 has produced a series of work that shows the complementary nature of biomethane-derived-RNG and other low-carbon technologies. This series includes: The <u>2017 Scoping Plan</u> Pathways Analysis, <u>Deep Decarbonization in a High Renewables Future: Updated Results from the California PATHWAYS Model</u> (June 2018) and <u>Residential Building Electrification in California</u> (April 2019) and <u>Natural Gas Distribution in California's Low-Carbon Future: Technology Options, Customer Costs and Public Health Benefits</u>, (Aas et al. 2019).

Initiative (EFI).3

Both the E3 and EFI work has demonstrated the importance of combining RNG with other strategies to reduce greenhouse gas emissions across all sectors in California. For our decarbonization efforts to be successful, we must expand, rather than limit, the set of technologies⁴ available.

As shown by E3 and EFI, RNG—and especially biomethane⁵—is likely to be an essential contributor to California's decarbonization effort, because it is a cost-effective solution available at scale in the near-term. We are pleased to see that the most recent E3 work (Aas et al. 2019) finds that, "RNG, particularly biomethane, is used in all mitigation scenarios that achieve an 80 percent [greenhouse gas] reduction by 2050." Aas et al. 2019 and the EFI work also shows biomethane use in buildings in all scenarios, even in 2050. We believe it is helpful to evaluate the impacts of RNG across all sectors. For example, both of following charts (from Aas et al. 2019 and the EFI work, shown together below as Figure 1), effectively demonstrate the importance of biomethane across all sectors and in the context of a broad portfolio of GHG reduction technologies.

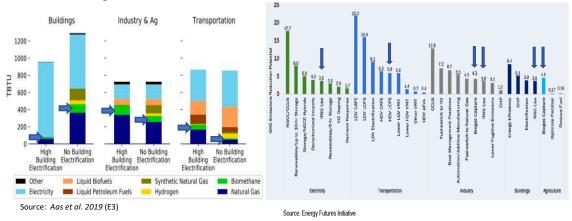


Figure 1. Both E3 and EFI Show RNG Use in All Sectors

³ EFI, May 2019, *Optionality, Flexibility, and Innovation, Pathways for Deep Decarbonization in California*, https://static1.squarespace.com/static/58ec123cb3db2bd94e057628/t/5ced6fc515fcc0b190b60cd2/15590645428 76/EFI CA Decarbonization Full.pdf.

⁴ We reemphasize 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.

⁵ Our organization focuses our current advocacy on biogas-derived biomethane, because of its near-term commercial potential, but we are supportive of all sustainable ways of making RNG.

⁶ Aas et al. 2019, see page 80.

⁷ We also note that, in *Aas et al. 2019*, biomethane is not used at any significant volume in the *Reference Scenario*, but it reaches 25% and 16% of remaining natural gas demand energy service demand in the *High Building Electrification* and *No Building Electrification* scenarios respectively. See Table 2 on page 33.

We believe the Draft IEPR is correct in focusing on the E3 and EFI studies as credible analyses of how to meet our greenhouse gas reduction goals. Both predict a large role for biomethane (and at least some role for other types of renewable gas) in reaching our decarbonization goals.

Given that the E3 and EFI Studies Show that RNG Use Will Be Critical to Reaching our Greenhouse Gas Goals, RNG Should Be Consistently Discussed Across All IEPR Chapters and Fully Integrated into Core CEC Analyses

We believe the Draft IEPR should better integrate RNG throughout the document to provide a consistent outlook on the importance of the technology and better evaluate what is needed to move RNG toward its full potential.

- RNG Could be Better Integrated into Core Analyses. For example, there is no substantive discussion of changes in RNG supply in the "Natural Gas Supply and Production" section of Chapter 9, despite the fact that an in-depth look at potential RNG was done for the 2017 IEPR⁸ and some of this information is contained in the Assembly Bill (AB) 1257 (Bocanegra, 2013) Appendix (Appendix A). It would be helpful to the RNG industry if the RNG supply work was updated in each IEPR iteration, as is done for sources of geologic (fossil) gas supply, to show how RNG is progressing in incrementally displacing geologic gas.
- The Topic-Specific Chapters Should Encourage RNG Use Across All Sectors. We strongly agree with the statement in the Draft IEPR, that "climate science requires focus on all sectors" and, as shown by the EFI and E3 work, RNG is uniquely capable of contributing to decarbonizing any sector of the California economy—including agriculture, buildings, electricity, industry, transportation, and waste. Most credible long run decarbonization studies predict some use across all of these sectors. In contrast, in various sector-specific sections of the Draft IEPR, the various authors appear hesitant to acknowledge that RNG could be a helpful solution.
- Don Not Downplay RNG Potential. For example, the statement that "multiple sectors are already competing for the limited supply of RNG, including heavy-duty transportation and aviation" in Chapter 2 is a mischaracterization that implies we are close to exhausting potential RNG supply or that there is already sufficient incentive to develop all of the low-carbon supply. This is simply untrue. According to CARB data, RNG use in transportation in 2018 was 120 million diesel gallon equivalents (15.3 Million MMBtu or 0.0153 quads). That is equivalent to only ~2% of the RNG supply

⁸ Chapter 9 of the 2017 IEPR. https://efiling.energy.ca.gov/getdocument.aspx?tn=223205

⁹ Draft IEPR, page 23

¹⁰ Draft IEPR, page 41.

¹¹ https://ww3.arb.ca.gov/fuels/lcfs/dashboard/quarterlysummary/quarterlysummary 103119.xlsx

curve in Aas et al. 2019^{12} or ~15% of the smallest estimate of the in-state technical potential to produce RNG in the 2017 IEPR.¹³

- RNG is Being Used to Decarbonize Transportation. We agree that the strongest policy support for RNG is currently in the transport sector, and therefore RNG in transportation is expected to grow, as stated in the Natural Gas Forecast section of Chapter 9.¹⁴ However, this Chapter still contains the troubling statement that "the availability of RNG could constrain its use on a large scale." Further, RNG is not mentioned at all in Chapter 3 (purportedly focused on "clean transportation" but almost exclusively focused on the important topic of vehicle electrification).
- RNG Can Be Used to Decarbonize Buildings. We recommend the Draft IEPR not inadvertently downplay the importance of using RNG in existing buildings as both the E3 and EFI results showing there will likely need to be RNG use in this sector (see Figure 1). RNG offers a chance to decarbonize buildings with natural gas infrastructure, both in the near-term (because long-lived building stock is slow to turnover) and in the long-term (for the applications that cannot be electrified). Therefore, building decarbonization efforts must not ignore RNG.
- RNG Could Help Decarbonize Industry. We see no significant discussion in the Draft IEPR of industrial decarbonization, despite the fact that E3 work often prioritizes this as the appropriate long-run use for biomethane supply (see Figure 1). We recommend such a discussion be added.
- RNG Likely Has Unique Value to a Highly-Decarbonized Electric System. With respect to power generation form RNG, Chapter 1 quotes Dr. Subin from E3 explaining that RNG to power is a potentially useful option to reaching full decarbonization. We recommend that this be explored further as described in Chapter 9, which states that "It is uncertain how much of a role RNG will play in power generation but the state should give this issue more attention as part of its long-term planning process." 17
- RNG Could Help Alleviate Near-term Gas Supply Issues in Southern California.

 Developing local RNG supply may also be able to help address gas supply issues in Southern California discussed in Chapter 6. We recommend adding a bullet similar to

¹² See Figure 8 on page 29 of *Aas et al. 2019* listing lower cost biomethane potential at about ~0.55 quads in the conservative scenario.

¹³ 2017 IEPR, page 254.

¹⁴ Draft IEPR, page 210.

¹⁵ Draft IEPR, page 211.

¹⁶ Draft IEPR, page 27.

¹⁷ Draft IEPR, page 212.

"explore RNG supply potential to help alleviate local congestion" to the list of direction to SoCalGas on page 160 of the Draft IEPR.

• Appendix A Doesn't Meet the Full Requirements of AB 1257. While we were pleased to see RNG issues discussed more thoroughly in Appendix A, we did not feel the Appendix fully met the statutory requirement to "identify strategies and options...[to take] the best advantage of natural gas as a low-emission resource, including potential zero and near-zero greenhouse gas emissions, natural gas, and biogas options..."

Specifically, we were disappointed to see the Appendix primarily lists existing programs related to biogas/biomethane/RNG without explaining how policy support could be improved through these existing programs or expanded through new programs. This misses a clear opportunity to identify how to grow RNG supply and decarbonize the pipeline in line with the E3 and EFI studies. The statutory direction in AB 1257 is clear; the IEPR should recommend going beyond the status quo to show how the gas system can help reach the State's emission goals. We recommend Appendix A be revised prior to finalization of the IEPR to make substantive policy recommendations about how to grow RNG use.

Additional Technology-Neutral Policy Support Should be Recommended

We continue to believe that 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. It is possible to design policies that allow competition between sources of GHG reductions in the building and industrial sector to achieve lowest-cost outcomes.

California has established other successful policies that create competition across a variety of greenhouse gas reduction options. For example, the Low Carbon Fuel Standard (LCFS) and the Renewable Portfolio Standard are both technology-neutral, market-based program that reduce lifecycle greenhouse gas emissions of various sectors. These programs have many years of proven success and the same concepts could be used to create a policy to promote cleaner options in buildings and industry. Creating a policy that allows for head-to-head competition around greenhouse gas performance between RNG and other technologies in these applications would minimize long-run costs.¹⁹

The CEC, the CPUC and CARB, should examine if an LCFS-like analog for utility procurement of RNG (used in the building and industrial sector) could be developed. One policy that could be helpful in achieving this goal would be a Renewable Natural Gas Procurement Program as

¹⁸ Public Resources Code § 25303.5(b)(3)

¹⁹ We note that RNG has not always been the low-cost source of renewable in the RPS (or the LCFS) but we believe that this cost-minimizing outcome of fairly design competitive programs is vastly preferable to picking technology winners in programs designed to shift energy sources over decades.

called for by Senate Bill 1440 (Hueso, 2018).²⁰ This would be in-line with the requirements of AB 1257 to "optimiz[e] the methods by which state and federal policy can facilitate any of the proposed strategies."²¹ It should be included as a policy recommendation in both Appendix A and the Executive Summary of the IEPR.

Conclusion

We appreciate the ongoing dialogue on building decarbonization issues. We respectfully ask the CEC to work with its sister agencies to create a well-designed policy framework that promotes the use 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.

Sincerely,

Sam Wade

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

²⁰ SB 1440 bill text here:

²¹ Public Resources Code § 25303.5(b)(9)