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RNG Coalition Feedback on California Air Resources Board 2022 Greenhouse Gas Scoping Plan – Short-Lived Climate Pollutant Workshops

Dear Ms. Sahota,

The Coalition for Renewable Natural Gas (RNG Coalition)[1] offers the following input on information presented by stakeholders during the Short-Lived Climate Pollutants (SLCP) Public Workshop (Workshop) hosted by the California Air Resources Board (CARB) on September 8, 2021, pursuant to the development of CARB's 2022 Greenhouse Gas Scoping Plan (Scoping Plan or the Plan).

As the organization that represents the RNG industry in North America, our goal is to ensure the sustainable development and utilization of RNG so that the benefits of waste-derived renewable gaseous fuels can be fully realized in California, and elsewhere. Consequently, we thank CARB for creating the opportunity for a robust discussion at the Workshop on a wide variety of RNG-related issues. The Scoping Plan process will be a crucial venue in which the State can articulate its vision for a wide variety of clean energy technologies that will be critical to decarbonization in California—including the specific role of renewable gases (RNG and green hydrogen). Accordingly, the following is our industry's holistic viewpoint of the benefits and evolving role of renewable gases in California, with a focus on SLCP reduction benefits.

Use of Renewable Gases is Necessary to Reach California's SLCP Goals

A comprehensive Scoping Plan which fully considers the implications of both SLCP reduction and gas sector decarbonization must incorporate the extensive body of information either produced or used by CARB,[2,3] the California Energy Commission (CEC),[4] non-Californian governmental agencies,[5] as well as

[1] http://www.rngcoalition.com/

[2] E3, *Achieving Carbon Neutrality in California.* https://ww2.arb.ca.gov/sites/default/files/2020-10/e3_cn_final_report_oct2020_0.pdf

[3] The *Driving California's Transportation Emissions to Zero* study (April 2021) from the UC Institute for Transportation Studies states that, "RNG plays a valuable role in a comprehensive decarbonization policy: It yields a valuable energy product, as well as soil amendments, and reduces the uncontrolled emission of methane from decomposing organic matter." https://escholarship.org/uc/item/3np3p2t0 (See page 264.)

[4] Page 35 of the California Energy Commission report entitled *The Challenge of Retail Gas in California's Low Carbon Future,* found that natural gas in California's residential, commercial, and industrial sectors would still ~1,000 tBtu in 2050 in the high-building-electrification case: https://ww2.energy.ca.gov/2019publications/CEC-500-2019-055/CEC-500-2019-055-F.pdf

[5] For example, see: https://www.epa.gov/sites/default/files/2020-07/documents/lmop_rng_document.pdf https://www.iea.org/reports/outlook-for-biogas-and-biomethane-prospects-for-organic-growth

academic publications that substantiate the necessity of renewable gaseous fuels in a decarbonized future. For example, Columbia University's Center on Global Energy Policy's recent study[6]—focused on the evolution of the gas system in a carbon neutral world—highlights the following:

> *"[R]etrofitting and otherwise improving the existing pipeline system are not a choice between natural gas and electrification or between fossil fuels and zero-carbon fuels. Rather, these investments in existing infrastructure can support a pathway toward wider storage and delivery of cleaner and increasingly low-carbon gases while lowering the overall cost of the transition and ensuring reliability across the energy system. In the same way that the electric grid allows for increasingly low-carbon electrons to be transported, the natural gas grid should be viewed as a way to enable increasingly low-carbon molecules to be transported."*

The RNG industry does not claim to be able to solve the daunting challenge of reducing all SLCPs from the organic waste and agriculture sectors or fully decarbonizing all current natural gas end-uses alone, but we know that renewable gases will be a significant contributor to these efforts. Successful efforts to reduce GHG emissions through the development and use of RNG combined with increased attention by California's energy utilities, environmental groups, municipalities, waste management and agricultural firms to RNG and organic waste SLCP issues has provided significant momentum for our industry to continue down this path. However, considering the suite of decarbonization strategies which must be deployed in tandem to meet California's ambitious climate goals, this iteration of the Scoping Plan represents a critical opportunity to fully explore and articulate a strategy for the use of biomethane and green hydrogen. To this end, CARB should fully consider all possible RNG end-uses in the near-term, as well as which uses of RNG may be most appropriate in the mid- to long-term.

As consistently explained in prior Scoping Plan cycles, Chapter 9 of the 2017 IEPR, CARB's Short Lived Climate Pollutant Reduction Strategy,[7] CalRecycle's analysis on progress toward SB 1383 waste reduction goals,[8] and the procurement target framework outlined in California Public Utilities Commission's (CPUC) SB 1440 whitepaper,[9] California has extensively considered the intersection between RNG's benefits in the waste, agricultural, and energy sectors in prior policy development. The urgency of addressing SLCPs specifically, with an eye toward the role of anaerobic digestion (AD) technologies, is also strongly supported by the Intergovernmental Panel on Climate Change's (IPCC)

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https://e21initiative.org/wp-content/uploads/2021/07/Decarbonizing-NG-End-Uses-Stakeholder-Process-Summary.pdf
https://climate.ny.gov/-/media/CLCPA/Files/2020-06-24-NYS-Decarbonization-Pathways-Report.pdf

[6] Blanton et. Al, *Investing in the US Natural Gas Pipeline System to Support Net-Zero Targets* https://www.energypolicy.columbia.edu/research/report/investing-us-natural-gas-pipeline-system-support-net-zero-targets?utm_source=Center+on+Global+Energy+Policy+Mailing+List&utm_campaign=38d4ab05a7-EMAIL_CAMPAIGN_2019_09_24_06_19_COPY_01&utm_medium=email&utm_term=0_0773077aac-38d4ab05a7-102456873

[7] https://ww2.arb.ca.gov/sites/default/files/2020-07/final_SLCP_strategy.pdf

[8] https://www2.calrecycle.ca.gov/Publications/Details/1693

[9] https://www.cpuc.ca.gov/uploadedFiles/CPUC_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Gas/SB1440_Staff_Proposal_FINAL.pdf

most recent report, which identifies "methane capture and recovery from solid waste management" as one of the best "short-term 'win-win' policies".[10]

Organic waste is a serious and growing issue, and climate and other environmental impacts from these wastes require an immediate and ongoing solution. Globally, municipal solid waste is expected to grow 69% from 2.01 billion metric tons (BT) in 2018 to 3.4 BT in 2050 (around 50% of which is organic waste).[11] Moreover, these trends are underpinned by an expected 25% population increase of 2 billion people between now and 2050.[12] In tandem with waste reduction efforts, RNG development and utilization will also be a primary solution for solving California's (and the nation's) leading biogenic methane emissions sources—livestock manure management and landfilled organics[13]—while simultaneously creating low carbon fuel.[14]

Articulating the Near-Term, Mid-Term and Long-Term Role of Renewable Gaseous Fuels

In prior Scoping Plan cycles, transportation was viewed by CARB as a very attractive end use for biomethane derived from AD of organic wastes, and the relationship between promoting RNG use in natural gas vehicles and achievement of the state's SLCP reduction goals was well articulated.[15] We understand and accept that this strategy may be shifting in this cycle. However, CARB should continue to provide coordination and leadership on this issue so that other agencies (CEC, CPUC, CalRecycle, 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 from AD of organic wastes have not changed since prior Scoping Plan cycles:

- Society's waste streams currently create significant methane that must be dealt with in some fashion.

[10] IPCC, 2021. *Climate Change 2021: The Physical Science Basis. Chapter 6. Short-Lived Climate Forcers.* https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter_06.pdf

[11] https://datatopics.worldbank.org/what-a-waste/trends_in_solid_waste_management.html

[12] https://www.un.org/development/desa/en/news/population/world-population-prospects-2019.html

[13] Manure management and landfills make up 47% of California's methane emissions and 26% of U.S. methane emissions. See: https://ww3.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_2000-18ch4.pdf and https://www.epa.gov/ghgemissions/overview-greenhouse-gases

[14] The consulting firm ICF estimates that 65% of landfills with gas collection systems in place, 60% of landfills without collection systems in place, 80% of EPA candidate landfills, 60% of technically available animal manure, 50% of wastewater treatment plants with a capacity of over 3.3 MG/D, and 70% of food waste available at $100/dry ton can be turned into RNG by 2040. Just these AD-ready feedstocks would produce approximately 1,425 t/Btu of RNG, covering approximately 8.4% of 2019 U.S. residential, commercial, and industrial natural gas demand (16,948 t/Btu). Additional renewable gas volumes could also be produced through non-AD processes. See: https://gasfoundation.org/wp-content/uploads/2019/12/AGF-2019-RNG-Study-Full-Report-FINAL-12-18-19.pdf and https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm

[15] For example, see page ES11 of the 2017 Scoping Plan Executive Summary, which recommends: "using more renewable gas – a valuable in-state resource made from waste products – *especially in the transportation sector*." [emphasis added]

- 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.
- Conventional natural gas use remains both a significant source of GHG emissions and a critical source of energy in California.
- The reliance on fossil fuels (especially conventional natural gas) is impossible to fully eliminate even in the near- to mid-term through demand-side actions alone.
- Supply-side promotion of renewable gaseous need not compete with demand reduction programs (including electrification) until such a time when fossil fuel demand is dramatically reduced below current levels.

Further, many long-term studies of decarbonization agree that the use of renewable gases is essential but disagree about which sector will most need RNG to decarbonize in the long run.[16] Because of these facts, at the workshop we attempted to articulate a nimble vision of how RNG can best help with decarbonization in the near-,mid-and long-terms as shown in Figure 1.

Figure 1. Strategies for RNG Deployment Must Be Prepared to (and Should) Shift Over Time

In the near-term, we must remain focused on the buildout of AD systems that can reduce methane, for the reasons discussed above. In the mid-term, 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 or failure of other low-carbon technologies.[17] Finally, in the long-run, production of hydrogen from biomass feedstocks may need to become the dominant gaseous energy carrier to be sure that carbon capture and sequestration negative-GHG opportunities are maximized to *remove* emissions from the atmosphere (because, unfortunately, society remains on a path to exceed the sustainable GHG budgets articulated by the IPCC).

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[16] WRI 2020, *Renewable Natural Gas as a Climate Strategy: Guidance for State Policymakers* https://static1.squarespace.com/static/53a09c47e4b050b5ad5bf4f5/t/60ad57a35aaa6563fbc3e508/1621972901032/2020_Dec+World+Resources+Institute_Renewable-natural-gas-climate-strategy.pdf

[17] 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. https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2017-integrated-energy-policy-report

Response to Selected Questions Raised in the SLCP Workshop

Accelerated Timeframe for Carbon Neutrality and SLCP Reductions

The RNG industry is aligned with the need for an ambitious decarbonization timeframe for California (and the world) and accordingly supports the consideration of a 2035 carbon neutrality target in this iteration of the Scoping Plan. Consideration of this accelerated goal will necessarily bring additional attention to reducing short-lived climate pollutants and require an adjusted, more stringent SLCP reduction target for 2030. With analysis of more aggressive targets, we expect RNG and organic waste-derived green hydrogen to serve as increasingly important near-term decarbonization strategies in this iteration of the Plan. However, in general, our remarks in these comments are drafted assuming that carbon neutrality is achieved no later than 2045, per the currently binding Executive Order.[18]

How should we use biogas/RNG?

Recent work from CalRecycle[19] and the California Public Utilities Commission's SB 1440 white paper[20] correctly summarizes the far-reaching waste and energy sector benefits (and methane-reducing potential) that could occur if RNG production is used to enable diversion of the organic portion of municipal solid waste from landfills. Similarly, CARB's recent analysis[21] of methane reductions—largely based on RNG—in California's livestock sector shows a promising path forward.

In considering how we should utilize biogas captured from organic waste, it is first important to ensure that there *is* a productive use and that the methane does not continue to be emitted or wasted (via flaring). Importantly, any holistic SLCP and gas decarbonization strategy must consider the extent to which natural gas is currently used for various services in California, and how that demand is expected to change over time. Given the large number of end-uses which currently require natural gas, the appropriate near-term strategy is to incentivize RNG use across all sectors to achieve methane reductions.[22]

In the long term, the best use of renewable gases may be more targeted toward the end-uses which are best served by gaseous fuels, and CARB should seek to outline that transition of existing infrastructure within the forthcoming Scoping Plan. Furthermore, CARB should consider the potential for current RNG feedstocks to be carbon-negative (when coupled with carbon capture and sequestration (CCS))—this should include organic waste feedstocks which are used to create biomethane, green hydrogen, or

[18] Executive Order B-55-18 (Brown): https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf

[19] https://www2.calrecycle.ca.gov/Publications/Details/1693

[20] https://www.cpuc.ca.gov/uploadedFiles/CPUC_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Gas/SB1440_Staff_Proposal_FINAL.pdf

[21] https://ww2.arb.ca.gov/sites/default/files/2021-06/draft-2030-dairy-livestock-ch4-analysis.pdf

[22] While shifting RNG resources toward specific sectors may be necessary in the medium- to long-term there is no need to exclude RNG from use in any sector today.

bioliquids, as outlined by the work done by Lawrence Livermore National Laboratory.[23] This process has the potential to facilitate several ancillary environmental benefits, including reducing wildfire risks and the negative impacts of openly burning agricultural waste, and would align with the ongoing work by CARB and CEC[24] on the production of renewable hydrogen.[25] Importantly, the use of carbon capture and sequestration in tandem with RNG provides another scalable energy pathway which can achieve carbon-negative emissions beyond accounting for the lifecycle impacts of methane destruction. This strategy is particularly important given the essentiality of employing carbon-negative technologies to reduce global temperatures after carbon neutrality has been achieved.

CARB's recent draft report on dairy sector methane reductions is very clear that significant additional agricultural AD project development will need to occur in California between now and 2030. The report's finding that an additional 4.4 $MMTCO_2e$ in required methane emissions reductions could be accomplished through some combination of AD and alternative manure management projects (Scenario 3),[26] with between 210 and 230 additional AD projects required,[27] and the clarification from CARB and California Department of Food and Agriculture that the existing AD projects have delivered some of the most cost-effective GHG reductions to date[28] should be used as guiding principles for relevant sections of the Scoping Plan.

How should we use solid biomass?

The process of producing carbon-negative green hydrogen through gasification of woody biomass and solid biomass waste (when paired with CCS) presents a significant opportunity for California's energy and waste sectors to decarbonize, with additional opportunities for the use of produced CO_2, but it is not without risks.[29] CARB must be sure to integrate these important resources into the forthcoming Scoping Plan, and should use the leading study from Lawrence Livermore National Laboratory as a

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[23] LLNL, *Getting to Neutral: Options for Negative Carbon Emissions in California*, Baker et al., January, 2020, Lawrence Livermore National Laboratory (LLNL) https://www-gs.llnl.gov/content/assets/docs/energy/Getting_to_Neutral.pdf

[24] On July 1, 2021 CEC held a workshop to examine technology advancements to scale hydrogen production in California. This work is part of CEC's efforts to solicit information needed to develop the CEC's EPIC 4 Investment Plan and to develop a Hydrogen Roadmap and Strategic Plan for a Decarbonized California. At the workshop various experts and CEC staff explained and expressed support for a broad variety of pathways for producing renewable/green hydrogen—including pathways producing hydrogen from biological sources. https://www.energy.ca.gov/event/workshop/2021-07/electric-program-investment-charge-2021-2025-investment-plan-scoping

[25] In the long-run, H_2 production with CCS may be preferable as it avoid concerns about so-called "purpose-created methane" but in the near-term gasification/pyrolysis projects should not be prohibited from producing methane if they can demonstrate strong CI performance.

[26] *Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions* (CARB Draft Report), pg. 21.

[27] CARB Draft Report, pg. 11.

[28] Draft Report, pg. 15.

[29] For example, if these facilities are not constructed in a way that ensures minimal methane leakage, they could have high carbon intensities. Due to this issue, hydrogen may be the most appropriate long-term energy carrier from projects targeting such feedstocks.

starting point. RNG Coalition supports a "multiple paths" approach, with significant attention put on the prospect of producing carbon-negative energy using CCS with RNG, green hydrogen, or low-carbon liquid fuels derived from these resources.

How should existing oil and gas infrastructure be repurposed with decline in fossil fuel throughput? How can we mitigate leakage in repurposed pipe?

RNG and green hydrogen—including gases produced through the methods outlined above—represent the most immediate and important manner by which the existing gas system can be transformed toward achieving carbon neutrality while serving the end-uses which will require renewable gaseous fuels in the long term. In doing so it will be critically important to continue to reduce methane leakage (and, in the future, prevent hydrogen leakage[30]) from the system for it to maintain and move beyond carbon neutrality, ultimately serving as a network which facilitates the transportation of carbon-negative gaseous fuels and captured CO_2. In tandem with traditional leak detection and repair efforts, incorporating lifecycle accounting for all energy resources will serve as a strong driver to mitigate leakage—during both production and transport—based on the impetus to achieve the lowest CI score possible.

RNG Coalition is currently working with third-party academic partners to better assess real-world leakage from RNG upgrading processes (where no reputable empirical US-based study yet exists) which will serve as a source of information for policymakers and provide a pathway for the industry to address leakage at whatever levels are observed. Furthermore, our membership includes those working to automate gas collection technologies and improve methane monitoring—aspects which we believe to be crucial to the long-term success of our industry. With this in mind, we appreciate CARB's attention to, and support for, such efforts.

To what extent should CARB prioritize or account for non-GHG outcomes of GHG reduction projects?

Non-GHG outcomes of GHG reductions projects—both benefits and disbenefits—should be a crucial part of CARB's consideration throughout this exercise. Generally speaking, RNG provides an incentive to better manage organic waste by providing an associated revenue stream for those who handle the waste, such as municipalities and farmers.

RNG production through anaerobic digestion of materials such as food waste, animal manure, and wastewater also yields valuable by-products. After the elimination of pathogens, digested solids can be recycled for productive uses such as animal bedding,[31] and AD converts nutrients into a form more accessible by plants than raw manure, allowing for an effective organic fertilizer.[32] Overall, recycling and using the by-products of waste through AD for RNG production processes creates a more environmentally responsible and sustainable circular economy. Therefore, RNG derived from AD of

[30] Hydrogen leakage also has an indirect global warming impact that must be accounted for. See: http://agage.mit.edu/publications/global-environmental-impacts-hydrogen-economy

[31] U.S. EPA. (2020, August 18). *The Benefits of Anaerobic Digestion.* https://www.epa.gov/agstar/benefits-anaerobic-digestion

[32] Id.

organic wastes should be thought of as a no-regrets near-term solution that eliminates a dangerous short-lived climate pollutant.

The goal of California's regulatory agencies should be to develop a suite of policies which will result in the California organic waste sector improving sustainability—from both a multi environmental media and human health standpoint—and to avoid simply pushing these industries to other jurisdictions. RNG is a proven technology in the realm of mitigating GHG emissions from organic waste and should be considered as a primary technology option. Improvement in waste sector GHG performance should be viewed as a crucial first step toward full sustainability, but it is not a substitute for completing the journey.

What additional strategies should be prioritized to further reduce methane emissions from the waste sector?

During the Workshop, CARB identified the implementation of new monitoring technologies, waste reduction, minimizing emissions from organics recycling facilities, and expanding market for bioproducts as potentially important strategies for further reducing methane emissions. RNG Coalition supports the widespread implementation of all these strategies, of which new monitoring technologies, minimizing leakage during RNG upgrading, and creating markets for bioproducts (including renewable energy such as RNG) are the most important to our industry.

We also reiterate[33] our preliminary policy recommendations related to RNG from prior Scoping Plan Workshop comments:

- ***Develop Targeted Renewable Gas Procurement Programs for all Gas Customers (or by Sector).*** Like the Renewable Portfolio Standard and Low Carbon Fuel Standard have successfully accomplished for power and transportation fuels, establishing a policy (or policies) that can decarbonize all gas end uses should be a critical goal of this iteration of the Scoping Plan. RNG procurement programs for core gas customers—as initiated by SB 1440—in a manner consistent with CPUC's recent whitepaper, represent an excellent starting point for this crucial aspect of promoting RNG use. Such programs will be a necessary component of meeting California's 2030 methane reduction targets and waste diversion goals outlined by SB 1383.

  Furthermore, it is important for CARB to further assess in this iteration of the Scoping Plan how renewable gas use can best be incentivized for non-core gas customers (such as the large users in the industrial sector). This could be accomplished either through expansion of the LCFS to cover a limited set of non-transportation end uses of gas, expansion of SB 1440 to include all utility and non-utility suppliers of gas (including those that primarily serve non-core customers), or through new industry-specific policies.[34] Designing policies for large industrial gas users may be more challenging because of concerns about economic and emissions "leakage" should out-of-state competitors not face similar requirements. However, from the RNG industry's perspective it's critical that a clear vision be presented in this iteration of the Plan on which

[33] See our July 9th comments on the June 2021 Scoping Plan Workshop for more details.

[34] Such as the type of program envisioned by SB 596 (2021, Becker) which would incentivize carbon reduction in the cement sector from a variety of technologies, including RNG. See: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB596

tools will be relied upon—and how they will interact—to fully decarbonize gas supply to all end uses in the state.

- ***Strengthen the LCFS through 2045 in line with the Statewide Economy Wide Goal of Carbon Neutrality.*** It will be crucial for CARB to strengthen LCFS carbon reduction targets from 2031 through 2045. The majority of growth in RNG driven by California recently has been due to this program and for this growth to continue the industry needs surety with respect to the stringency of targets post-2030.

- ***Align GHG Accounting Across all Programs Promoting RNG.*** The greenhouse gas accounting in RPS (and BioMAT) programs should be adjusted to better align with the LCFS and other emerging programs which utilize LCA and CI scoring in evaluating GHG reductions from RNG. Achieving the SB 100 goals will likely require dispatchable sources of renewable power. Such flexibility can be provided by renewable gases.

- ***Consider All Renewable Gas Feedstocks.*** This Scoping Plan presents an important opportunity to examine all feedstocks that can be converted into renewable gases in the long run, some of which have large co-benefits. As described above, the state has closely looked at how some organic wastes can be treated through anaerobic digestion to reduce methane, but that is not the full universe of potential bio-feedstock for renewable gas production.

What amount of methane reduction should be expected pre- and post-2030?

In understanding RNG's role as a near-term (pre-2030) methane reduction strategy, it is important to consider both the well-proven technology readiness of various methods of making RNG today and the flexibility provided by RNG's full fungibility with all conventional gas applications. As discussed above, in the near term RNG is primarily a methane reduction and waste management strategy. In the mid- to long-run (post-2030), RNG can be directed to the end-uses where it is most needed, adapting to success in technologies that require time to scale and achieve production cost reductions (e.g., electrolytic hydrogen, heavy duty electric vehicles) or that involve the turnover of long-lived capital stock (e.g., electrification of building space and water heating).

If proper incentives are deployed methane reduction through RNG production can proceed more swiftly than initially called for in the 2017 SLCP Strategy.

Conclusion

This iteration of the Scoping Plan, in tandem with other ongoing efforts such as the development of the 2021 Integrated Energy Policy Report, represents an important opportunity to reflect our most up-to-date understanding of the many technologies which will be necessary to decarbonize California. Our industry is excited about the prospect of painting a clear picture for the use of renewable gases, and the various cross-sector interactions and benefits which these resources are uniquely positioned to create. We thank CARB for the opportunity to comment and for your ongoing work in developing the next iteration of this in-depth, world-leading Plan.

Sincerely,

/S/

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