Tim Carmichael
Agency Relations Manager
State Government Affairs

925 L Street, Suite 650
Sacramento, CA 95814

tel: (916) 492-4248
Email:
TCarmichael@semprautilities.com

June 5, 2020

Ms. Qian Mitloehner
Air Pollution Specialist, Industrial Strategies Division
California Air Resources Board
Sacramento, California

Submitted electronically via online portal for 2020analysis-ws:
https://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=2020analysis-ws&comm_period=1

Re: Comments in response to May 21, 2020 Public Webinar: CARB's Analysis of Progress Toward Achieving Methane Emissions Target from Dairy and Livestock Sector

Dear Ms. Qian Mitloehner:

Southern California Gas Company (SoCalGas) appreciates the opportunity to comment on the California Air Resources Board's (CARB) May 21, 2020 public webinar titled, CARB's Analysis of Progress Toward Achieving Methane Emissions Target from Dairy and Livestock Sector. Specifically, CARB is requesting information on 1) Methane emissions reductions projects implemented 2013 or later, and 2) Progress made in overcoming technical and market barriers.

SoCalGas understands that the dairy and livestock measures in CARB's Short-Lived Climate Pollutant (SLCP) plan are a major key to achieving the 2030 goal in CARB's Climate Change Scoping Plan, and agree that greenhouse gas (GHG) emission reductions from this sector provide both environmental and economic benefits for our state.

SoCalGas supports California in its effort to reduce short-lived climate pollutants and we support the greater use of renewable gases (RG) such as biogas and hydrogen. Additionally, SoCalGas believes that the collection and utilization of biogas is absolutely essential for California to meet its climate change and air quality goals. Equally important, however, is the need for a prudent infrastructure investment strategy to enable the sustainable production and utilization of RG. Injection of this valuable resource into utility pipelines for delivery to natural gas customers gives RG access to the broadest possible market, facilitating the most diverse and flexible end-use opportunities. By using existing infrastructure, we can create value for RG derived from organic sources and enable significant reduction of methane and GHG emissions.

Senate Bill (SB) 1383 and Pipeline Interconnection
SoCalGas has worked with state agencies on SB 1383 goals to establish infrastructure development and procurement policies needed to encourage RG projects. Injection of methane created from dairy and livestock waste into utility gas pipelines for delivery to and use as a renewable energy resource by

natural gas customers is a public benefit, and beneficial to all classes of ratepayers.[1] By providing support for reductions from this sector, California creates value and enables significant mitigation of atmospheric methane emissions while simultaneously producing a flexible and reliable renewable energy resource. Therefore, SoCalGas continues to support additional interconnection facilities and pipelines necessary to achieve this public purpose and supports rate recovery from all customer classes by California utilities.

SoCalGas continues to work with multiple parties to improve the interconnection process by simplifying and standardizing procedures across California for RG project developers and producers. One example is the proposed Renewable Gas Interconnection Rule (Rule) and Interconnection Agreements (Agreements) jointly filed with the California Public Utilities Commission (CPUC) by SoCalGas, SDG&E, Southwest Gas, and PG&E (collectively, the Joint IOUs). The Joint IOUs filed the Rule on November 1, 2019, and the Agreements on May 1, 2020. They include standardized tariff language, and a package of forms and agreements necessary to establish a predictable, standard RG interconnection process for project developers and RG producers. These documents are under review by the CPUC.

Continued Market Barriers

There are still challenges associated with interconnecting distributed sources of renewable energy onto the state's gas pipeline system. High project startup costs, including the costs of connecting to the gas pipeline system, account for one of the biggest hurdles to RG project development, regardless of feedstock. However, interconnection with the gas pipeline system gives RG access to the broadest market possible, facilitating the most diverse and flexible utilization opportunities and hence most dynamic and effective incentive strategies to encourage methane capture to achieve the objectives of SB 1383.

An example of the demand for funding assistance is CPUC's Renewable Gas Pipeline Interconnection Incentive Program (Incentive Program), which instituted a reservation system for access to the Incentive Program[2]. Shortly after the reservations opened, there were more applications from RG project developers than funding allocated to the Incentive Program. There are nine projects in the reservation system, with two having claimed $8 million of the $39.5 million available and another eight projects on the waitlist.[3] The eight projects on the waitlist represent an additional $33.5 million of needed funding, so clearly there is opportunity to develop more RG projects. However, it is unclear how many waitlisted projects would move forward without the Incentive Program funding. If additional funding could be allocated by the CPUC to the Incentive Program to support those RG projects not yet in the reservation system, it would help increase in-state methane reductions. Investment here is not dissimilar to the early investment in renewable solar PV that allowed for increased deployment and declining costs.

---

[1] AB 197 requires consideration of public benefits.

[2] CPUC Decision 19-12-009 Establishing a Reservation System for the Biomethane Incentive Program, available at https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M321/K901/321901043.PDF.

[3] See CPUC RG Pipeline Interconnection Incentive Program, available at https://www.cpuc.ca.gov/General.aspx?id=6442455827#RGPIIP.

Biomethane Quality Standards
California has three biomethane projects that inject biomethane into the utility gas pipeline system, one of which has been operating since 2012. SoCalGas manages the gas quality testing for all three locations and these facilities have consistently met SoCalGas Rule 30[4] Biomethane Delivery Specifications. As such, SoCalGas does not consider cleaning biogas to meet pipeline quality standards to be a technical barrier.

Renewable Gas Standard
SoCalGas supports an RG standard and believes that the market for RG can be jump-started through utility procurement. The utilities are well positioned to invest in RG projects due to their experience with large infrastructure projects and access to lower-cost capital. Utilities can help drive the demand for RG and create market pull that will simultaneously increase supply and lower the overall cost. Moreover, utility procurement of in-state sources of renewable gas also has the potential to create in-state jobs and increase in-state economic activity, especially for rural and agricultural regions of the state. The construction and ongoing operation and maintenance of renewable gas facilities will require skilled labor on-site at dairies, wastewater treatment plants, landfills and diverted organic waste facilities. Many of these facilities fall within communities identified as disadvantaged by the state, such as those within the San Joaquin Valley. These regions will benefit from the increased economic activity associated with RG in addition to local environmental quality improvements. Additionally, using renewable gases to decarbonize end-uses allows consumers to use the appliances they prefer while minimizing, their carbon impact. This will allow for deep emissions reductions in two sectors simultaneously: the methane emissions from the renewable gas sources are reduced, and the end-use emissions are reduced, since the RG has displaced traditional natural gas.

Lastly, this policy will be especially important in supporting a transition to zero-carbon RG such as hydrogen derived from power-to-gas, hydrogen derived from steam methane reformation of biomethane and hydrogen derived from biomass waste conversion facilities. It is critical to establish a program for gas utilities to procure RG so it may be injected it into the gas pipeline system. For example, currently Hawaii has approximately twelve percent hydrogen content in their gas system. With a hundred thousand miles of gas pipelines in the SoCalGas system, large scale off-take of renewable hydrogen can support carbon neutral to carbon negative gases that can be flexibly stored and used for all sectors of the economy. According to a recently released study by Lawrence Livermore National Labs, California's existing natural gas infrastructure was identified as an outlet for hydrogen production noting the natural gas system can safely accommodate about 20-30% hydrogen by volume.[5]

Other Opportunities
Developing additional RG markets is important and SoCalGas believes the state should prioritize the development and use of RG and other low-carbon energy resources as they can provide immediate and long-term reductions of GHG emissions. The Low Carbon Fuel Standard (LCFS) prioritizes RG for transportation fuels and currently over seventy percent of natural gas vehicles in California operate using RG. As the transportation market moves closer to saturation, stationary markets will become increasingly important to the continued development of the RG industry and attainment of California's

[4] SoCalGas Rule 30, available at https://www2.socalgas.com/regulatory/tariffs/tm2/pdf/30.pdf
[5] Getting to Neutral, Options for Negative Carbon Emissions in California", Lawrence Livermore National Labs, released January 2020, study reference "IEA Technology Roadmap: Hydrogen and Fuel Cells," Jun. 2015

climate goals. We believe CARB is looking beyond 2030; therefore, we support policies developed now that will facilitate both immediate and long-term use of RG in other sectors including buildings and the industrial sector–especially those hard to decarbonize such as long-distance transport and structural materials (cement and steel).

As part of the SLCP Plan, CARB has extensively evaluated in-state RG and there are multiple advantages to developing this market–reducing California GHG emissions, in-state job creation, and air quality co-benefits. However, CARB should also consider the significant amount of RG available nationally as another resource for all California sectors. CARB's LCFS already provides economic incentives for RG to be delivered through the interstate natural-gas pipeline system.[6] There is considerable potential for additional out-of-state RG to replace traditional natural gas[7] for use in many California sectors such as those mentioned above.

Conclusion

As CARB plans for meeting the State's aggressive climate goals, SoCalGas encourages staff to consider an inclusive approach–one that is technology neutral, welcomes all ideas, considers all forms of energy, encourages and allows for current and future innovation, and very importantly factors in the cost and affordability of energy. Achieving the State's climate goals cannot come at the price of deepening the state's affordability crisis, increasing income disparities or accelerating economic leakage. We strongly believe that a diverse energy portfolio that includes multiple fuels and technologies is necessary to meet California's energy needs and environmental policies in a cost-effective and feasible manner.

Creating an integrated, flexible, multi-faceted strategy will provide the innovation necessary to realize California's bold vision and facilitate national and global adoption. Making this vision a reality will require business leaders, non-governmental organizations, and policy makers to work together to reimagine how California's energy infrastructure can operate as an integrated system that maximizes emissions reductions and minimizes waste.

SoCalGas appreciates the opportunity to provide comments on the May 21 Public Webinar, and we offer to further engage with CARB staff to discuss our research and development program, balanced energy approaches, and share the latest advancements in the renewable gases. Please contact me if you would like to schedule meetings with appropriate staff members.

Sincerely,

Tim Carmichael

Tim Carmichael
Agency Relations Manager

---

[6] Over 90% of California's current natural gas supplies are transported over interstate pipelines from out-of-state producing regions. This gas can be displaced by RG.

[7] ICF estimates there is roughly 9 trillion cubic feet per year of domestic RG potential based on the U.S. Department of Energy's Billion Ton Study. See page 10 of the ICF whitepaper "Design Principles for a Renewable Gas Standard," available at https://www.icf.com/-/media/files/icf/white-paper/2017/icf_whitepaper_design_principles.pdf.