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In Response to the Panel Questions for the Joint Agency Workshop on Renewable Gas

Additional submitted attachment is included below.

**BEFORE THE STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION MISSION**

In the matter of:
Preparation of the
2017 Integrated Energy Policy Report

Docket No. 17-IEPR-10
(Filed June 26, 2017)

**COMMENTS BY CAMBRIAN ENERGY IN RESPONSE TO THE PANEL
QUESTIONS FOR THE 2017 INTEGRATED ENERGY POLICY REPORT JOINT
AGENCY WORKSHOP ON RENEWABLE GAS**

Dated: July 14, 2017

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STATE OF CALIFORNIA ENERGY RESOURCES CONSERVATION AND

17-IEPR-10

DEVELOPMENT COMMISSION

In the matter of:

Preparation of the

2017 Integrated Energy Policy Report

**COMMENTS BY CAMBRIAN ENERGY IN RESPONSE TO THE PANEL
QUESTIONS FOR THE 2017 INTEGRATED ENERGY POLICY REPORT
JOINT AGENCY WORKSHOP ON RENEWABLE GAS**

Cambrian Energy Development LLC and its affiliated companies (“**Cambrian Energy**”) is a leading developer of landfill gas-to-energy and biogas-to-energy projects in the United States. Cambrian Energy has developed more than 50 of such projects, including 3 RNG projects, one of which is the largest RNG project in the United States located at the McCommas Bluff Landfill in Dallas, Texas.

Cambrian Energy appreciates the opportunity to respond to the panel questions asked throughout the June 27th Joint Agency Workshop on Renewable Gas hosted by the Energy Commission (CEC), Public Utilities Commission (PUC) and Air Resources Board (ARB) to inform the 2017 Integrated Energy Policy Report (2017 IEPR) to the State Legislature. We look forward to continuing working with the CEC, PUC and ARB towards an adopted 2017 IEPR by February 2018 and successful implementation of the biomethane related requirements pursuant to SB 1383 (Lara, 2016).

There are two supplemental documents attached to the comments set forth herein that include information relevant to the questions asked by panel members in the Workshop. The first is a PowerPoint presentation given by Evan Williams of Cambrian Energy and Paul Morrow of Morrow Renewables on behalf of the Coalition for Renewable Natural Gas at a May 31, 2013 CEC workshop on

Impediments and Solutions to development of RNG projects in California. The second is a March 15, 2016 presentation given at the Solid Waste Association of North America Landfill Gas Symposium by Evan Williams of Cambrian Energy regarding the impact of the adoption of California's legislation requiring the diversion of organics away from landfills and its impact on RNG.

Please find our brief comments below in *italics* responding to the specific questions **in bold** that were presented to seven different panels during the Joint Agency Workshop on June 27, 2017:

PANEL 1: Overview of California Policies, Programs & Regulations Related to SB 1383 Responsibilities

- 1. How do you track the progress of biomethane/biogas/renewable gas development and use? How do you evaluate the need to continue, coordinate or re-configure government programs in the context of programs/activities conducted by other government agencies and private investment in projects?**

See the comments submitted by the Coalition for Renewable Natural Gas (“RNG Coalition”).

- 2. What types of data are needed to monitor and maximize the development and use of biomethane/biogas/renewable gas and**

optimize government activities to achieve 40 percent reduction of short-lived climate pollutants (SLCP) by 2030?

See the comments submitted by the RNG Coalition. In addition, please refer to the comments set forth below regarding the critical need for California to amend its regulations to facilitate non-combustion thermal conversion technologies (i.e., gasification and not incineration) in order to accomplish the dilemma of solid waste disposal created by the requirements for diversion of organics from landfills. While doing so gasification projects will perform complete disposal of such diverted organics with no problematic secondary disposal of materials. It will also capture nearly all of the energy content included in organics by conversion to RNG or other fuels and thus make a meaningful contribution to the 40 percent reduction of SLCP by 2030.

PANEL 2: Potential to Develop Biomethane, Biogas and Renewable Gas to Produce Electricity and Transportation Fuels in California

- 1. How much growth of energy development and use from renewable gas, biogas and biomethane do you expect for each submarket (e.g., dairy and livestock, food waste and organic diversion, waste water treatment, landfill gas and agricultural/forestry and urban woody biomass residue)?**

See the comments submitted the RNG Coalition. The processing of dairy and livestock waste, food waste and organic diversion, biosolids from

wastewater treatment plants, agricultural waste and urban woody biomass into a refuse derived fuel (“**RDF**”) suitable for gasification will allow for remote processing of such feedstocks for delivery to a central gasification facility located near a natural gas pipeline. If such gasification facility were located at a landfill, which is already zoned for truck traffic and the handling of solid waste, this location would facilitate adding gas processing equipment to a gasification facility that is producing RNG so as to convert the additional collected landfill gas into RNG. With California’s laws requiring diversion of organics (which are anaerobically converted within a landfill into landfill gas) from landfills, this will cause a diminishing production of landfill gas from the many millions of tons of organic material already buried in California’s landfills. That diminishing production of landfill gas represents a diminishing feedstock required for RNG gas processing facilities. It will be an impediment, particularly as time passes and landfill gas production further decreases, to the development of standalone RNG gas processing projects at California landfills. The co-location of a gasification-to-RNG project at a landfill cures the economic deficiency of a diminishing single fuel source. The ongoing production of RNG from continually supplied and gasified organic materials will allow for shared operational costs and capital expenditures (such as RNG gas monitoring and interconnection costs) that would help both technologies used to produce RNG.

2. What key factors (i.e., incentives, technology advances, and business maturity) are required to be in place to achieve 2030 SLCP targets in California?

See the comments submitted the RNG Coalition. In the view of Cambrian Energy the key technology advance that must occur for California to achieve the 2030 SLCP targets is the demonstration at commercial scale gasification of organics to RNG technology. Cambrian Energy is investing its own money to conduct such a demonstration of that technology at commercial scale. Due to the natural gas pipeline access and definitional impediments that now exist in California with respect to the development of gasification projects, the demonstration project is being done outside of California. Major technology providers have joined with Cambrian Energy in this demonstration. The key aspect requiring demonstration will be the gasifier. All other components of the process have already been commercially demonstrated throughout the world and can be procured with the requisite guarantees of performance to support project financing.

If the demonstration by Cambrian Energy in 2017 of the gasifier at its commercial scale project is successful, such facility will be available to be visited by California legislators and regulators to witness its effectiveness. Such facility will operate using very high heat that is generated electrically and not through any combustion event. The process of organics through gasification is not incineration. The syngas produced by the gasification

will be collected, cleaned of contaminants and then converted by means of a commercial methanation process into natural gas pipeline quality RNG.

The methanation process is a catalytic one, so constituents about which natural gas pipelines have expressed concern during the PUC AB 1900 proceedings, such as siloxanes and sulfur, will be removed before being introduced to the catalytic methanation process.

- 3. What are the prospects to use biomethane, biogas and renewable gas for the growth of electricity generation compared to transportation fuel?**

See the comments submitted the RNG Coalition.

- 4. Which factors are more subject to volatility or uncertainty and what actions are needed to mitigate vulnerabilities?**

See the comments submitted by the RNG Coalition. Also, please see the recommendations regarding the creation of Positive Dollars and Negative Dollars by state and federal policies as set forth in the 2013 PowerPoint presentation that will accompany these comments.

- 5. How do you see a market growth sequence or progress of steps evolving for each submarket and what government actions are needed at each step?**

See the comments submitted by the RNG Coalition. We expect a rapid growth in the development in California of gasification projects for separated MSW, including food waste and yard trimmings, for animal

waste, and for biosolids from wastewater treatment plants. For this to occur, however, some anachronisms in current regulation regarding gasification projects will have to be corrected. Those restrictions on the development of gasification include the definition of the gasification process, the limitation of project sizes to 500 tons per day and the exclusion from receipt of organic diversion credit to cities and counties that deliver the organic waste stream for gasification as opposed to composting or anaerobic digestion.

These limitations were adopted at a time when gasification technology was incorrectly understood to be the same as incineration. Unlike the incineration of waste process, no combustion of organics occurs using gasification technology.

The limitations on the use of gasification technology also occurred at a time when the major solid waste management companies wanted all waste streams to be directed to the landfills that they owned and operated and not to any alternative method of disposal of that waste. With the adoption of AB 1826 and AB 341, disposal of all organics in California landfills is no longer an option.

6. How soon would you expect substantial market growth for each submarket?

See the comments submitted by the RNG Coalition. Cambrian Energy expects to see rapid development of gasification projects for most of the

categories of organic waste listed by the CEC as soon as the regulatory impediments to the development of gasification projects is removed. Gasification projects represent a total waste disposal solution. There would be no residual environmental exposure to address as there is with landfill gas. Owners of landfills are required to maintain gas collection systems and are responsible for the control of landfill gas emissions for 30 years after the closure of a landfill. This is because only approximately 1/3 of the energy content in the organics deposited in landfills is projected to be converted by anaerobic digestion to landfill gas over a 25 to 30-year period. By contrast, approximately 85% to 90% of the energy content of organics that are gasified to syngas are captured and converted. This happens in a matter of seconds and not over a 25-year timeframe. The remaining material is an inert ash or slag that can be easily disposed of for roadbed material. It could even be disposed of in a landfill, since it is now an inert material and no longer an organic. However, disposal in a landfill would add a cost. The better solution is to sell the ground slag as roadbed material.

Gasification of organics will yield the highest recovery of the energy content in such organics. It represents a total disposal solution for such organics. It eliminates the large cost and lengthy environmental exposure that now exists for the large fraction of organics deposited in landfills that will continue to produce landfill gas over many years.

PANEL 3: Utility Strategies to Reduce Short-Lived Climate Pollutants

1. **How does your utility plan to address the need to reduce short-lived climate pollutants?**

Not applicable.

2. **What actions have you taken or plan to take to reassure that the natural gas system and pipelines are reliable, safe and minimize leakage?**

Not applicable.

3. **How will the emergence and success in the development and use of biomethane, biogas and renewable gas affect the future direction and operation of your utility?**

Not applicable.

4. **What steps could you take to enhance biomethane pipeline injection through lower costs, expedited construction times or other actions?**

Not applicable.

5. **What efforts do you plan so disadvantaged communities can take advantage of the development of biogas, biomethane and renewable gas?**

Not applicable.

PANEL 4: Progress, Success, Lessons Learned from Existing Projects

1. **How would you characterize the success of your project and key ingredients for success?**

Cambrian Energy has developed three (3) RNG projects outside of California, including the largest RNG project currently operating in the

United States at the McCommas Bluff Landfill in Dallas, Texas, the largest landfill in Texas. That project was the first one at which a long-term RNG sale agreement was entered into pursuant to which the higher value of the renewable attributes inherent in landfill gas were translated into a higher price for RNG that was to be used by a California utility to use such RNG in a highly efficient combined cycle turbine to produce renewable electric power.

Cambrian Energy also co-developed the only RNG project in the State of Arkansas. That project sells its RNG for use as a transportation fuel in the California market.

Each of those projects meets the requirements of the Secret Formula: revenues must exceed expenses predictably.

For a project to meet the Secret Formula, usually three forms of engineering pertaining to that project must be successfully performed:

Technical Engineering

Financial Engineering

Political Engineering

The Technical Engineering relates to the design and specification of commercially proven equipment that will produce RNG that will consistently, with a margin of safety, produce RNG from a given renewable feedstock that will continuously and reliably meet the standards of any natural gas pipeline into which it will be injected (the most common circumstance for large-scale RNG projects).

The Financial Engineering relates to the requirement for a long-term, predictably priced agreement for the sale of RNG that will provide sufficient revenues to repay the large debt component used to finance most large RNG projects. Such repayment must also result in a sufficient Debt Service Coverage Ratio for the project, which is the ratio derived by subtracting all cash expenses for a project other than the debt service from the cash revenues and then determining the ratio of the resulting cash flow to the debt service.

The Financial Engineering also relates to the requirements for an Engineering, Procurement and Construction Contractor to provide a wrapped guarantee of all the engineering and design of the RNG facility that usually includes performance standards that the produced RNG will continually meet the natural gas pipeline specifications. It is this latter element that has proved problematic with the natural gas pipeline standards adopted in California by the CPUC. For the Sempra Utilities, such standards, particularly for siloxanes that are a level that cannot be reliably measured. And, since not meeting such a standard can result in the RNG being shut out of the pipeline with the resulting total loss of revenues, steely eyed members of the banking and lending community are unwilling to accept such a risk.

It is the latter circumstance where there is intersection of Financial Engineering with Political Engineering. Political Engineering includes standards that must be met as established by both local and state

permitting authorities as well as laws that govern requirements that must be met for a specific technology to be constructed and operated.

In the case of gasification, Political Engineering will need to occur to change the incorrect definition of gasification, so that legislators and regulators understand that gasification is not incineration. It also will include adding gasification as a form of technology for disposal of organics that will count toward the diversion of organics goals imposed on cities and counties.

If the foregoing Financial Engineering and Political Engineering impediments are corrected, there is a robust market for the construction and operation of gasification projects in California to convert organics to RNG.

2. What is the potential to replicate your progress throughout the state?

There is a very large potential to replicate throughout California the gasification project technology that will soon be demonstrated out of state. If gasification processes are sited at landfills, it will also facilitate the utilization of the diminishing landfill gas resource to be converted to RNG while uses some of the infrastructure that will be common to the gasification facility, including interconnection to a natural gas pipeline.

3. What challenges might interrupt continuing successful operation or impede expansion or the development of additional projects for any of the following areas:

1. Technology development

The technology for traditional gas processing of biogas and landfill gas is well established and financeable. Cambrian Energy will be demonstrating a commercial scale gasifier in 2017 which, if it is successful as anticipated, will result in commencement of commercial operation of the full gasification-to-syngas-to-RNG project by the fourth quarter of 2018.

Once such gasification facility is operational, it will be ready for use in RNG projects to be developed in California, assuming that the Political Engineering hurdles that now exist have been successfully addressed in California by that time.

2. Project location

For most projects, location near to a natural gas pipeline will be a financial necessity.

*However, with the gasification technology, the organics must first be dried, shredded and processed into a refuse-derived fuel (“**RDF**”) so it may be fed into the gasifier. This requirement also presents an opportunity to use less expensive equipment located at more remote sources of the organics to process the organics into RDF.*

This now makes possible the production of RDF at locations that otherwise would be too small to support either a biogas-to-RNG processing facility or a gasification facility. The RDF could be

produced at smaller material recovery facilities (MRFs), or at smaller dairies or cattle feed lots and then transported to a gasifier that could be located much nearer to a natural gas pipeline.

3. Pipeline injection

See the comments by the RNG Coalition.

4. Business model

Cambrian Energy is of the view that RNG projects are best developed by the private sector and not by utilities or other governmental agencies. RNG projects require both technical expertise and financial engineering expertise that is typically not found in public entities. Natural gas pipeline companies are paid for use of their pipelines to receive and transport RNG. They may even construct and operate CNG stations at which natural gas vehicles could be fueled with RNG. These uses are consistent with the experience and mission of the natural gas pipeline utilities. The development of the large organic resource in California into RNG will best be served if the natural gas pipeline companies and private sector RNG project developers remain in a collaborative relationship and not a competitive one.

5. Project financing

There are some challenges to obtaining project financing for any RNG projects. One of the Financial Engineering requirements for these projects is that the term of the RNG sale agreement be at

least equal in term to the term of the project finance debt. With uncertainty surrounding the federal Renewable Fuel Standard program, getting a long-term, predictably priced RNG sale agreement is a challenge today.

See the accompanying two PowerPoint presentations on impediments that existing in obtaining project financing and suggested solutions to overcome those obstacles.

6. Institutional/regulatory

Please see the attached 2016 PowerPoint that outlines the conflicts that exist in regulatory standards among California's regulatory agencies with respect to the rules and objectives that each agency is trying to meet and how those objectives often work at cross purposes with respect to RNG project development. The Silo scheme of regulation needs to have a governmental referee to adjust the conflicting priorities so as to remove needless obstacles and accelerate development of RNG projects.

California needs to adopt a clearinghouse approach as it once did wherein a developer would have a single point of contact for coordinating all of the regulatory approvals it may need to permit and construct an RNG project.

7. Demand and vehicle availability

The availability of CNG medium and heavy-duty trucks and buses that can use RNG as a fuel is the single largest impediment to the

growth of the RNG market in California. This is due to the requirement that RNG must demonstrate delivery of such fuel into vehicles in order to realize the high prices that can be obtained under the federal Renewable Fuel Standard administered by the EPA and under the Low Carbon Fuel Standard administered by CARB.

With the recent approval by the Board of Directors of the Los Angeles Metropolitan Transit Authority for the procurement of RNG to fuel its 2,000 municipal bus fleet, the result is that nearly 91% of all CNG vehicles in the State of California are being fueled by RNG. That leaves a very small percentage of existing CNG vehicles that could be fueled by RNG and support the growth of the RNG market in California.

Even with legislative discussions to increase the RPS to 100%, the fiscal realities faced by RNG projects when competing with subsidized technologies like wind and solar to satisfy the needs of the municipal and IOU electric utilities are problematic.

Revenues to an RNG project that sells its fuel for use as a transportation fuel in California exceed \$30/MMBtu. By contrast, the price received from the sale of such fuel to produce renewable electric power is less than \$11.50/MMBtu at best, and in many cases much lower.

The challenge to achieving increased sale of CNG vehicles is the premium price that must be paid over the cost of a comparable diesel vehicle. That differential ranges from \$30,000 to \$100,000 per truck or bus. When oil was at \$100 per barrel, the price differential in the purchase price could be recovered in less than 3 years due to the fuel savings realized from the use of CNG. At \$50 per barrel oil, that fuel savings is much less and the vehicle purchase price barrier is a high one absent grants, tax credits or subsidies to make up the price differential.

CARB has reported that 32% of California's NOx emissions and 40% of its particulate matter emissions result from the medium and heavy-duty truck and bus sector. For that reason, every diesel truck that is replaced with a CNG vehicle results in a large improvement in California's emissions and a step closer to meeting the SLCP goals of 2030.

11 Air Districts have also petitioned the EPA to adopt the Ultra-Low NOx engine standard as the standard for new vehicles sold nationally. They stated the reason for the national standard is that many vehicles that travel in California are not registered here, so they are outside of the regulatory jurisdiction of CARB>

CARB also gave a recent Webinar in which they are pushing to the adoption of the Ultra-Low NOx standard. In the announcement for the Webinar they included a statement that if every medium and

heavy duty truck and bus registered in California were to meet the current model year emission standard of .2 grams NOx per bhp-hr, California still could not meet the federally mandated ambient air emission standards. That means that California will have to lower the emission standards for new vehicles to the Ultra-Low NOx emission standard or close to it.

Cambrian Energy is a major equity owner and a member of the management team of North American Repower LLC, a company that has technology to convert existing diesel engines to dedicated CNG. It has received the only CARB certification of an after-market conversion of an on-road diesel engine to dedicated CNG.

North American Repower also has receive a grant from the CEC and co-funding from SoCalGas and SCAQMD to develop a heavy duty dedicated CNG engine that meets the Ultra-Low NOx emission standard (which is 10 times lower in allowable NOx emissions than the current new engine standard). NAR has been told by diesel engine manufacture's that it is unlikely diesel engines will be able to meet that Ultra-Low NOx standard.

Fleet owners that operate medium and heavy-duty trucks are faced with a material change in how they fuel, maintain and operate their fleets when deciding to change to an alternative fuel, such as CNG/RNG. Thus, the premium price obstacle is not the only barrier

that must be overcome when talking with fleet owners about changing their vehicles to CNG.

North American Repower has developed an engine and an alliance of companies that can provide solutions to all of the concerns faced by fleets considering a change to CNG. The first advantage of the North American Repower approach is price. It offers the ability to convert an existing diesel medium duty vehicle to dedicated CNG at 1/3 to 1/2 of the price of purchasing a new dedicated CNG vehicle. It also offers relationships with companies that can complete the conversion to CNG in a 3-day period, can design, construct, operate and maintain CNG fueling stations, can supply both CNG and RNG and can finance (for creditworthy fleets) the cost to convert and vehicles and the construct and operate a CNG fueling station, if required.

If California is going to realize the development of its sizable organic feedstock to RNG fuel, there is a large requirement for more CNG vehicles. North American Repower represents a large part of that solution.

There is mention in the 2013 PowerPoint attached to these comments of the types of assistance that the State of California could provide to accelerate the growth of CNG vehicles in the state. The most meaningful would be to expand the guarantee of financing available that would allow financial institutions to more

easily reach an underwriting decision to extend loans to fleets. Currently that type of financial assistance is only available to small fleets of 10 or fewer vehicles. The expansion of this type of assurance to lenders to support the conversion of existing trucks to CNG or purchase of new CNG vehicles would be of enormous benefit.

Grants are very helpful. But grants represent the expenditure of tax dollars. A loan guarantee or its equivalent is merely loaning the creditworthiness of the State of California to assist the private sector in switching to CNG/RNG as a fuel. This does not take immediate dollars out of the California treasury. It does help meet California's environmental goals and will support the switch of more vehicles to CNG.

8. Related infrastructure

The natural gas pipeline system for delivery of natural gas and RNG to fueling stations already exists.

4. How much and what type of government action (regulation, incentives, other actions) is needed to achieve the SB 1383 SLCP goals?

Please see answers already provided above.

PANEL 5: Emerging Technologies and Market Opportunities

1. How would you characterize the promise of your fuel/technology and what steps are required to achieve commercial availability?

The promise for the gasification technology that will be demonstrated at commercial scale in 2017 at an out-of-state location is very high for the application of such technology to address both California's organic waste disposal needs and the achievement of its goals to reduce SLCP.

The potential exists to develop a very large number of gasification projects in California if the demonstration of the gasifier by Cambrian Energy to be conducted in 2017 is successful, as it is expected to be.

2. What challenges might interrupt development and commercialization of your fuel/technology for any of the following areas:

1. Technology development

Please see answers already provided above (Panel 4).

2. Project location

Please see answers already provided above (Panel 4).

3. Pipeline injection

Please see answers already provided above (Panel 4).

4. Business model

Please see answers already provided above (Panel 4).

5. Project financing

Please see answers already provided above (Panel 4).

6. Institutional/regulatory

Please see answers already provide above (Panel 4).

7. Demand and vehicle availability

Please see answers already provided above (Panel 4).

8. Related infrastructure

Please see answers already provided above (Panel 4).

3. What type of government action is required to support development and use of emerging fuels and technologies?

See the attached 2013 PowerPoint.

4. Can cost data be provided to the Energy Commission to support the cost-effectiveness and economic viability of your fuel/technology?

Yes.

PANEL 6: Market Maturity, Business Models and Factors That Attract Private Project Financing

1. What is your view of the potential for growth and appetite for private investment in any of these submarket sectors for either power generation or transportation fuels in California?

If the three forms of engineering referenced above can be achieved, there is a large appetite for private investment in gasification-to-RNG projects in California and elsewhere.

2. What key ingredients are needed to stimulate and maintain private investment in these types of projects? What can government do to support, complement and accelerate achieving these key ingredients?

Please see related answers already provided above.

- 3. Is total capital investment needed to achieve the SB 1383 goals in the realm of possibility from private capital sources with government supporting actions?**

Please see related answers already provided above.

PANEL 7: Demand, Vehicle Fleets and Other Factors

- 1. What is needed to increase the number of vehicle product offerings and vehicle volume sales to achieve SB 1383 goals?**

Please see answers above

- 2. What do fleet owners/managers need to see to make commitments and purchase/lease vehicles that can use biogas, biomethane and renewable gas as a fuel?**

Please see answers above.

- 3. Is there sufficient customer demand in California for electricity and transportation fuel produced from renewable gas, biogas and biomethane?**

As mentioned above, governmental assistance will be needed to ease the decisions by fleets to convert from diesel fuel to CNG/RNG. Increasing the number of CNG medium and heavy-duty vehicles is the critical path to supporting the development of a large number of RNG projects in the State of California.

- 4. What roles do federal agencies and local governments play in evaluating and supporting the development and use of biogas,**

biomethane and renewable gas as a source of electricity or transportation fuel?

Please see related answers already provided above.

5. What actions do you recommend the State of California take to achieve the SB 1383 SLCP goals and account for the views of utilities, investors, electricity generators, fuel developers, host site owners, vehicle manufacturers, vehicle fleet owners, environmental justice and public interest organizations, and local governments?

Please see related answers already provided above as well as the information in the attached PowerPoints..

CONCLUSION

Cambrian Energy looks forward to continue working with Commissioners, Board Members and Staff at the CEC, PUC and ARB throughout subsequent workshops leading up to a 2017 IEPR to the Legislature and through implementation of SB 1383 requirements to identify cost-effective strategies for increased development, deployment and utilization of renewable natural gas in California.

Respectfully signed and submitted on July 14, 2017.

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_____/s/_____

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