BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Adopt
Biomethane Standards and Requirements,
Pipeline Open Access Rules, and Related Enforcement Provisions
Rulemaking 13-02-008 (Filed February 13, 2013)

BIOENERGY ASSOCIATION OF CALIFORNIA’S REPLY COMMENTS
ON THE ASSIGNED COMMISSIONER’S AMENDED
SCOPING MEMO AND RULING

Dated: August 31, 2018

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The Bioenergy Association of California (BAC) submits these Reply Comments on the Assigned Commissioner’s Amended Scoping Memo and Ruling (the “Scoping Memo”). BAC’s Reply Comments focus on several issues raised in parties' Opening Comments and the Administrative Law Judge’s subsequent Ruling seeking information on safety issues. In particular, BAC’s Reply focuses on:

1. Support for the California Council on Science and Technology’s recommendations on BTU and siloxanes;
2. Support for a biomethane procurement program that is focused on instate production and includes all organic waste sectors and conversion technologies;
3. Support for additional incentives for biomethane, including an increase in the interconnection incentive program and an allocation of Cap & Trade allowance revenues to biomethane production;
4. Support for additional R&D funding for biomethane production and distribution;
5. The need to adopt pipeline standards for additional sources of biomethane;
6. Safety related issues; and
7. Whether and how to include other forms of renewable gas in this proceeding.

I. MOST PARTIES AGREE THAT THE COMMISSION SHOULD ADOPT CCST’S RECOMMENDATIONS ON BTU AND SILOXANES.

The California Council on Science and Technology (CCST) did an outstanding job in its assessment of the BTU and siloxanes requirements for pipeline biomethane.¹

BAC agrees with the vast majority of parties’ Opening Comments in support of CCST’s recommendation to lower the BTU requirement to as low as 970.²

BAC also agrees with many of the parties’ Opening Comments in support of CCST’s recommendations on siloxanes: both the need for additional research on siloxanes impacts and the recommendation to reduce verification and reporting requirements for sources of biogas that are unlikely to include siloxanes, such as biogas from dairy, agricultural and forest waste.³ BAC disagrees with parties that recommended that all renewable gas should be held to same standards.⁴ That contradicts the recommendations of the Office of Environmental Health Hazard Assessment and the California Air Resources Board that informed the current standards and monitoring

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² Parties that filed Comments in support of a lower BTU requirement include: the Bioenergy Association of California (BAC), California Association of Sanitation Agencies (CASA), California Bioenergy, Clean Energy, CR&R, DTE Biomass, East Bay Municipal Utility District (EBMUD), Gas Technology Institute, Harvest Power, Maas Energy, Southern California Gas Company, Agricultural Energy Consumers Association (AECA), Climate Resolve, Dairy Cares, Bloom Energy, and PG&E and Southwest Gas (both with caveats).
³ Parties that filed Comments in support of CCST’s recommendations on siloxanes include: BAC, CASA, California Bioenergy, Clean Energy, CR&R, EBMUD, Harvest Power (supports reduced verification requirements), Southern California Gas, AECA, Climate Resolve, PG&E, Coalition for Renewable Natural Gas (supports reduced verification and reporting), Dairy Cares.
requirements, and contradicts the CCST report. It also makes no sense given the enormous differences in feedstocks and renewable gas constituents.

BAC agrees with most of the parties that filed comments, therefore, that the Commission should implement the CCST recommendations on BTU and siloxanes as soon as possible.

II. MANY PARTIES SUPPORT ADOPTION OF A BIOMETHANE PROCUREMENT REQUIREMENT.

BAC agrees with many parties’ Opening Comments that the Commission should adopt a biomethane procurement requirement to further the goals of AB 1900, SB 1383 and other important state policies. As CR&R notes in its Opening Comments:

“The state’s climate plan depends on SLCP reductions to provide more than one-third of all climate reductions needed to meet the state’s 2030 climate goals. The state’s SLCP goals, in turn, rely heavily on increased production and use of biomethane”

As CR&R notes, both AB 1900 and SB 1383 call on the Commission to adopt additional policies to increase production and use of biogas and biomethane. CR&R correctly notes that the “lack of market certainty is a major impediment to biomethane development in California. The gas sector needs a procurement policy like the RPS in the electricity sector.”

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6 Parties that support the Commission’s adoption of a biomethane procurement program include: BAC, CASA, Clean Energy, CR&R, EBMUD, GTI, Climate Resolve, Harvest Power, PG&E (may support), Los Angeles County Integrated Waste Management Task Force, and California Natural Gas Vehicle Coalition (CNGVC).

7 CR&R’s Comments on the Assigned Commissioner’s Amended Scoping Memo and Ruling, filed in R.13-02-008 on July 26, 2018, at page 4.

8 Id.

9 Id. at page 8.
BAC agrees with the ten other parties that also urged the Commission to adopt a biomethane procurement program.\textsuperscript{10} A procurement program should:

a. Focus on instate resources to the extent allowed by the Commerce Clause of the U.S. Constitution;

b. Include all organic waste feedstock sectors and all conversion technologies that can convert organic waste to biomethane; and

c. Prioritize the lowest carbon intensity forms of biogas that reduce Short-Lived Climate Pollutant emissions and air pollution from wildfires and controlled burns of forest and agricultural waste.

III. THE MAJORITY OF PARTIES SUPPORT ADDITIONAL INCENTIVES AND R&D FUNDING FOR BIOMETHANE.

BAC agrees with the majority of parties to this proceeding that urged the Commission to adopt additional incentives for biomethane and/or renewable gas more generally. BAC supports the additional incentives proposed by parties, including recommendations to:

A. Increase the Interconnection Incentive Program

At least 19 parties proposed extending the current incentive program for interconnection, and most of those parties also asked that the total incentive cap be increased.\textsuperscript{11} BAC agrees and urges the Commission to

- Increase the interconnection incentive fund to at least $400 million total (or to remove the program cap altogether);
- Allow the utilities to rate-base the costs of interconnection;
- Allow rate-recovery for the costs of gathering lines for dairy digester cluster projects; and
- Establish a queue for the interconnection incentive program.

\textsuperscript{10} See footnote 6, above.

\textsuperscript{11} Parties that support increasing and/or extending the interconnection incentive program include: BAC, CASA, California Bioenergy, Clean Energy, CR&R, DTE Biomass, EBMUD, GTI, Harvest Power, Maas Energy, SoCalGas, AECA, Climate Resolve, PG&E, Southwest Gas, RNGC, Dairy Cares, LA County Integrated Waste Management Task Force, AquaHydrex.
B. Allocate Up to 15 Percent of Gas Sector Allowance Revenues to Biomethane

At least a dozen parties support allocating a portion of the gas utilities’ Cap & Trade allowance revenues to biomethane production and use. Many parties, including BAC, suggested allocating up to 15 percent of gas sector revenues to biomethane (or renewable gas more generally) production since it is the lowest carbon alternative to fossil fuel (natural) gas use, often lower carbon than renewable electricity. Biomethane, in particular, is a beneficial alternative to fossil fuel gas since it reduces Short-Lived Climate Pollutants like methane and black carbon, which are the most damaging climate pollutants, and biomethane use helps to meet the state’s organic waste diversion, dairy methane reduction, wildfire and other policies.

C. Increase R&D Funding for Biomethane and Renewable Gas Generally

Many of the parties to this proceeding support increased R&D funding for biomethane and/or renewable gas more generally. The state’s Short-Lived Climate Pollutant Reduction Strategy and the California Forest Carbon Plan also recommend increased research, development and deployment funding for biomethane and for conversion of forest and agricultural waste to pipeline biomethane and vehicle fuel. BAC urges the Commission to increase the Natural Gas PIER program and to allocate a portion specifically to biomethane related R&D.

12 Parties that support allocating gas utilities’ Cap and Trade allowance revenues to biomethane include: BAC, CASA, California Bioenergy, Clean Energy, CR&R, EBMUD, GTI, Harvest Power, SoCalGas, Climate Resolve, CNGVC, AquaHydrex.
13 According to the California Air Resources Board, biomethane from dairy waste and diverted organic waste are carbon negative, while solar and wind power are carbon neutral. In the case of dairy biogas, it can provide 2 to 3 times the carbon reductions that solar and wind power can provide. See, https://www.arb.ca.gov/fuels/lcfs/fuelpathways/pathwaytable.htm.
14 Parties that supported increased R&D funding in their Opening Comments include: BAC, CASA, California Bioenergy, Clean Energy, DTE Biomass, EBMUD, GTI, PG&E, Southwest Gas, RNGC, LA County Integrated Waste Management Task Force.
IV. MANY PARTIES RECOMMEND ADOPTING PIPELINE STANDARDS FOR ADDITIONAL SOURCES OF BIOGAS

BAC agrees with many parties’ opening comments urging the Commission to adopt pipeline standards for additional sources of biogas. The Commission adopted standards for landfill, wastewater and dairy biogas in D.14-01-034. In addition, D.14-01-034 stated that biogas from diverted food waste should meet the standards for wastewater biogas. Adopting additional standards – or providing guidance about which of the current standards is applicable to additional feedstock sources – is critical to meet the waste diversion requirements of SB 1383 (Lara, 2016), the carbon and air quality goals of the California Forest Carbon Plan, and health-based air pollution standards.

SB 1383 requires the state to divert 75 percent of all organic landfill waste to other, beneficial uses to reduce methane emissions from the solid waste sector. According to CalRecycle, the majority of that organic waste is wood and yard waste, not food waste. The Commission should clarify, therefore, whether all diverted organic waste (not just food waste) will be held to the same standards as wastewater biogas. Over time, it would probably be more appropriate to consider diverted organic waste, or at least the green waste (plant material) portion separately as it is likely to have different, and possibly fewer, constituents of concern than wastewater biogas.

BAC also urges the Commission to adopt pipeline standards for forest and agricultural waste. As the CCST report noted, forest and agricultural waste are unlikely to have the same constituents of concerns as landfill, wastewater or dairy biogas. The California Forest Carbon Plan and the Governor’s many emergency and executive orders on forests and wildfire call for greater forest fuel removal and conversion to bioenergy and

16 Parties that urged the adoption of pipeline standards for additional types of biogas include: BAC, Clean Energy, CR&R, EBMUD, GTI, Harvest Power, SoCalGas, PG&E, CNGVC, LA County Integrated Waste Management Task Force.
17 SB 1383 (Lara), Statutes of 2016, Chapter 395.
18 California Forest Carbon Plan, footnote 15, above.
20 CalRecycle, Landfilling of Waste, published September 17, 2013, Table 1, page 3.
other beneficial uses. The Forest Carbon Plan calls specifically for commercializing the conversion of forest fuel to vehicle fuel, which will almost certainly require pipeline injection to transport the fuel, so adopting pipeline standards for forest biogas is important to help address the state’s wildfire crisis by providing another end use for forest fuel that is removed to reduce wildfire and other hazards.

Adopting pipeline standards for forest and agricultural waste will also help California to meet public health-based air quality requirements. The California Air Resources Board has found that bioenergy reduces black carbon, particulate matter, carbon monoxide and methane emissions by 98 percent compared to open burning of agricultural and forest waste. The California Air Pollution Control Officers Association – the heads of California’s local air districts – agrees with the reductions in black carbon, particulate matter and volatile organic compounds (including methane), and has found that bioenergy also reduces NOx – the biggest contributor to smog formation – by 70 percent compared to controlled burns of agricultural and forest waste. These are enormous air quality benefits that the Commission can accelerate by adopting pipeline standards for biogas from forest and agricultural waste and encouraging their conversion to pipeline biogas and other energy end uses.

For all these reasons, BAC agrees with parties that recommend adoption of pipeline standards for additional biogas sources including diverted organic waste, agricultural and forest waste.

V. IF THE COMMISSION IS GOING TO INCLUDE ADDITIONAL FORMS OF RENEWABLE METHANE IN THIS PROCEEDING, IT SHOULD BE IN A SEPARATE PHASE AND WITH DIFFERENT INCENTIVES.

BAC agrees with many parties that the Commission should adopt standards and

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22 California Forest Carbon Plan, footnote 15 above, at page 136.
23 Id. at page 131.
incentives for other forms of renewable gas or renewable methane, but not in this proceeding, or at least on a separate track from biomethane standards and incentives. This Rulemaking was instituted to implement AB 1900 (Gatto, 2012), which focused on biomethane and biogas only. The interconnection incentive for pipeline biomethane was adopted in response to the requirement of AB 1900 to adopt additional policies and incentives to increase biogas and biomethane, not renewable gas more generally.

As Decision 15-06-029 explained, the Commission decided to adopt a:

“policy and program of providing monetary incentive to encourage potential biomethane producers to build and operate biomethane projects within California that interconnect with the utilities. Such an incentive will encourage biomethane producers to develop, construct, and operate such biomethane projects. At the same time, this incentive program will help offset the biomethane producers’ costs of complying with D.14-01-034, while limiting the financial exposure of the utility ratepayers for such a program.” (emphasis added)

SB 1383 (Lara) calls on the Commission and other agencies to increase renewable gas production and use, but SB 1383 also limits the definition of “renewable gas” to biogas and biomethane. SB 1383 requires state agencies to “adopt policies and incentives to significantly increase the sustainable production and use of renewable gas, including biomethane and biogas.” SB 1383 specifically requires the Commission to consider “additional policies to support the development and use in the state of renewable gas, including biomethane and biogas, that reduce short-lived climate pollutants in the state.”

In every instance that SB 1383 refers to “renewable gas,” it limits the definition by using the phrase “including biomethane and biogas.” If the Legislature wanted to include other forms of renewable gas besides biomethane and biogas, then it would have used the phrase “including, but not limited to, biomethane and biogas.”

25 Several parties requested or support adoption of additional standards and/or incentives for renewable gas, in addition to biomethane and biogas. Those parties include: BAC, Clean Energy, CR&R, Harvest Power


28 Health and Safety Code section 39730.8, sections (b)(c) and (d).
biomethane and biogas only. This makes sense since SB 1383 is focused on Short-Lived Climate Pollutants (SLCPs) emissions and other forms of renewable gas – while beneficial – do not reduce SLCPs.

BAC supports the adoption of standards and incentives for other, non-biological sources of renewable gas, but urges the Commission to do so in a different proceeding since other forms of renewable gas face different technological hurdles and provide different benefits than biogas and biomethane. If the Commission does consider adopting standards and incentives for other forms of renewable gas in this proceeding, then BAC urges the Commission to do so in a subsequent or parallel track. BAC also urges the Commission to define “renewable gas” to include the gas from renewable sources only, including organic material and renewable power. Renewable gas should not include hydrogen or methane generated from fossil fuels or fossil-fuel based power. BAC also urges the Commission to adopt incentives for other forms of renewable gas that are based on carbon intensity, SLCP reductions and other benefits since there can be a very significant difference in the costs and benefits of different forms of renewable gas.

VI. OTHER ISSUES RAISED IN PARTIES’ OPENING COMMENTS

BAC offers the following replies to other issues raised by parties in their Opening Comments.

A. Including privately owned pipelines in Interconnection Incentive

BAC agrees with Agricultural Energy Consumers Association, Maas Energy and other parties that the interconnection incentive should be available to help connect to privately owned pipelines that then connect to utility pipelines as this may be less expensive overall than interconnecting directly to a utility pipeline.

B. Including trucking to transport biomethane

BAC does not have a position on whether trucks and trailers should be included in the interconnection incentive program, but if the Commission decides to include them, then it should consider the additional emissions from vehicle transport and require that any
incentives for transport vehicles should be for near-zero emission trucks that run on biomethane to minimize air and climate pollution and maintain the lowest possible carbon intensity of the biomethane that is transported.

C. Use of Combustion Engines, Allocation of Environmental Credits, Changes to the BioMAT Program, Etc.

Parties made a number of recommendations in Opening Comments that fall outside the scope of this proceeding. In particular, BAC urges the Commission to reject or ignore recommendations to revise the BioMAT program, which should be considered in R.15-02-020 and R.18-07-017. BAC also urges the Commission to reject suggestions to ban combustion engines and to authorize trading of environmental credits. These issues fall outside the scope of this proceeding, which is pipeline biomethane standards and policies.

D. Establishment of a Single, Joint Utility Interconnection Tariff

BAC may support the establishment of a single, joint utility interconnection tariff for all biomethane sources. Any such tariff and related documents must provide sufficient flexibility to accommodate gas quality deviations, gas blending, gas balancing and non-utility ownership and operatorship of interconnection facilities.

Unlike other sources of gas supply, Biomethane production from digester-based facilities is a dynamic, biological process that is not conducive to uniform hourly flowrates. Any flow rate uniformity requirement applied by the utilities to digester-based Biomethane sources should be on a good faith efforts basis only, to the extent such uniformity is operationally feasible.

If the gas utilities cannot reasonably agree on standardized terms and conditions for rendering that flexibility, then each utility should be allowed to negotiate the terms of interconnection under its existing Commission-approved tariff and related documents.

E. Nominations and Delivery to Utility Pipelines

BAC supports CalBio’s proposal that nominations for delivery of dairy biomethane be simply “on” or “off” for a given day and that deliveries be limited only by biomethane production rate and physical pipeline takeaway capacity. As an alternative to an
“on”/“off” nomination scheme, BAC could support SoCalGas’ current California Producer 7-day balancing (with 14-day payback period) as a reasonable accommodation for balancing at biomethane injection points.

F. Clarification of Federal Tax Issues
BAC understands that utilities must pay a federal property transfer tax when pipeline interconnection facilities are transferred to the utilities. This tax can be greater than 20 percent of the infrastructure costs. BAC urges the Commission, therefore, to consider ways to avoid this significant additional expense, including rate-basing pipeline interconnection, considering alternative ownership models or other means to avoid having to pay this transfer tax, which adds significantly to the costs of interconnection.

VII. SAFETY ISSUES RAISED IN ALJ’S AUGUST 10 RULING

A. Heating Value Specification and Related Issues
BAC supports CCST’s recommendation to reduce the heating value to as low as 970. BAC also urges the Commission to allow utilities the flexibility to allow an even lower heating value in some circumstances.

In addition, BAC agrees with CalBio and other parties that utility charges for the establishment of new BTU Districts can be significant and offset savings from blending and other provisions.\(^30\) Because the heating value of gas is not uniform across the utility gas system, BTU Districts are necessary for the accurate measurement and billing of gas usage (in BTU) by utility customers.

The costs of installing the equipment and telemetry necessary to establish new BTU Districts are currently being charged to biomethane projects despite the future benefits derived from such facilities accruing all utility customers. Heating values across the utility systems will continuously change over time as California transitions away from fossil natural gas toward biomethane and renewable natural gas. Instead of

\(^{30}\) CalBio Comments.
concentrating these costs on biomethane project proponents, the Commission should allow utility ratebasing of new BTU District facilities such that they are spread thinly over all customers classes benefitting from improved BTU data accuracy.

Further, as CalBio observes, new BTU Districts may only be required on distribution lines having limited flow volumes. At the very least, the Commission should allow rate-basing of utility costs to establish new BTU Districts where they are needed.

B. Maximum Siloxane Concentrations for Biomethane

BAC supports the CCST recommendation to conduct additional research on the siloxane standards for biogas from landfills, wastewater treatment and diverted organic waste.

C. Reduced Verification Requirements

BAC supports CCST’s recommendation to reduce the monitoring and verification requirements for siloxanes from biogas sources that do not contain siloxanes, including dairy, agricultural and forest waste.

D. Waiver Process for Blending in Certain Locations

BAC agrees with the many other parties that recommended allowing blending in certain locations.\(^{31}\) BAC agrees that there should be a process for biomethane producers to request utility approval of a lower heating value standard at locations where adequate blending will occur by the time the gas arrives at end-use equipment. In addition to heating value, the Commission should require the utilities to look at component-specific, non-hydrogen sulfide gas quality specifications\(^{32}\) (e.g. Carbon Dioxide, Oxygen, Hydrogen, Total Inerts) to ascertain the feasibility of utilizing blending to accommodate costs.

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\(^{31}\) Parties that supported blending in their Opening Comments include: BAC, Clean Energy, California Bioenergy, CR&R, DTE Biomass, Harvest Power, GTI, PG&E and Southwest Gas (on a case by case basis), RNGC, and Bloom Energy.

\(^{32}\) Not including Health Protective Constituents or Pipeline Integrity Protective Constituents. See SoCalGas Rule 30, Sections J.5.
biomethane production that may not continuously meet a bright-line numerical value on a sample-by-sample basis. Denial of access, even on a non-latching basis, after two consecutive 4-8 minute samples\textsuperscript{33} could lead to shut-in and possible flaring of biomethane. Given State policy aimed at maximizing biomethane supply and reducing emissions, the Commission should require the utilities to provide additional flexibility at biomethane injection points where it can be accomplished without negative impact to utility system operations.

E. Additional Safety Issues that the Commission Should Consider

BAC supports CalBio’s proposal to increase the allowable oxygen level in pipeline biomethane. Although Rule 30 permits up to 0.2% oxygen, PG&E’s Rule 31 only allows 0.1% oxygen. Biogas producing digesters often require air injection for optimal operation (unlike fossil gas reservoirs) and as a result it then becomes very expensive to later have to reduce oxygen levels to these ultra-low fossil gas levels. BAC supports CalBio’s proposal for a study to be initiated to determine if oxygen levels up to 0.5% for biomethane are acceptable and safe. BAC also supports CalBio’s proposal to set, at least in the short term, a standard oxygen concentration limit for biomethane at 0.2% for all CA gas utilities.

Thank you for consideration of these Reply Comments.

DATED: August 31, 2018

Respectfully submitted,

\textit{/s/ Julia A. Levin}

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\textsuperscript{33} See SoCalGas Rule 30, Section I.8.
VERIFICATION

I am a representative of the Bioenergy Association of California and am authorized to make this verification on its behalf. The statements in the foregoing document are true of my own knowledge, except as to matters which are therein stated on information or belief, and, as to those matters, I believe them to be true.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 31st day of August, 2018 in Kensington, California.

/s/ Julia A. Levin

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