



***Pacific Gas and  
Electric Company™***



**SOUTHWEST GAS CORPORATION**

November 9, 2022

Ms. Carolyn Lozo  
California Air Resources Board  
Branch Chief, Oil & Gas and GHG Mitigation Branch  
Industrial Strategies Division  
P.O. Box 2815  
Sacramento, CA 95812-2815

**Subject: Comments on the AB 1900 Proposed Biomethane Monitoring Recommendations**

Dear Ms. Lozo:

Southern California Gas Company (SoCalGas), Pacific Gas and Electric (PG&E), and Southwest Gas (SW Gas), investor-owned utilities providing natural gas service in California (collectively, the “joint utilities”), appreciate the opportunity to provide comments in response to the California Air Resource Board (CARB) October 18, 2022, public workshop regarding the AB 1900 Proposed Biomethane Monitoring Recommendations (AB 1900 recommendations) and on CARB’s draft *Biogas Constituents of Concern and Health Protective Levels for Biomethane: Supplement Report to OEHHA AB 1900 Biogas Recommendations* (“CARB draft report”).<sup>1</sup> The joint utilities very much appreciate working collaboratively with CARB staff, Kathleen Kozawa and Michelle Watterson, as such collaboration allows all parties involved to better understand the history, previous state actions, and the process moving forward.

---

<sup>1</sup> See [AB1900\\_DRAFT\\_CARB\\_Supplement\\_Report.pdf](#)

CARB staff provided a comprehensive and detailed workshop. As such, the joint utilities' questions and comments mainly focus on the CARB draft report. The questions and comments are grouped in three categories: 1) those mostly general in nature, 2) those regarding process going forward, and 3) those specific to various chemical constituents of concern (COCs).

**A) General Questions/Comments**

1. We understand CARB and the Office of Environmental Health Hazard Assessment (OEHHA) held numerous separate meetings with biogas project developers, biomethane interconnectors and other stakeholder groups like the joint utilities. The joint utilities respectfully request being included in future meetings between biogas project developers/biomethane interconnectors and CARB, and/or with those parties and CARB and OEHHA.
2. The joint utilities understand CARB staff discussed sampling and test methods with various commercial laboratories. It would be very helpful if CARB would share the names of these commercial laboratories (possibly in section 5, References) so stakeholders might be able to contact and possibly utilize the same laboratories in the future.
3. Are the methods listed in *Table 3. Recommended test methods for COCs* included in the CARB draft report as recommendations or are they required test methods? Discussions with CARB staff and with commercial laboratories we use have been very helpful, and we would like to continue to share information, such as possible test methods that may be easier to perform in the field (where we are sometimes under challenging heat and industrial conditions) or less costly to implement.
4. Would CARB please explain why and exactly which references are being used to add new testing requirements for existing COCs (those included in the original OEEHA and CARB reports) to existing biomethane interconnectors? For example, dairies must now test for Dichlorobenzene and Vinyl Chloride when testing was not previously required.
5. For the newly added COCs, the joint utilities recommend the following:
  - If a producer tests both their raw biogas and the treated biomethane during the pre-injection period, and the new COCs are non-detectable or below trigger levels in both the raw and the treated gas streams, then no periodic testing for the new COCs would be required for the biomethane. Also, the biomethane interconnector must attest to not introduce the new COCs into the biogas or biomethane.
  - For pre-injection testing, two successful tests shall be conducted over a two to four-week period, preferably, at least two weeks apart. Periodic testing will be performed in accordance with current requirements in the applicable utility renewable gas interconnection tariff.

6. For *Table 4. Recommended monitoring requirements for COCs* on page 7 of the CARB draft report, the joint utilities recommend the following edit to the Action associated with the following Monitoring Result “Trigger Level  $\leq$  Result  $<$  Lower Action Level”:
  - Quarterly monitoring until Results  $<$  Trigger Level for 4 consecutive quarters below Trigger, then Annual Monitoring

**B) Process Questions/Comments**

1. The joint utilities understand we must submit applications to the California Public Utilities Commission (CPUC) to modify our renewable gas interconnection tariffs within six months of CARB issuing the final AB 1900 report after which the CPUC will approve the tariffs. Once the CPUC has approved changes to the tariffs, when will testing for the newly added/revised COCs be required for existing biomethane interconnections?
  - Would testing be required for the new COCs immediately after approval of the tariff updates? And if so, would this testing include existing COCs for which changes occurred (new limits or newly added to a biogas source category)?
  - Or could testing be performed for the new COCs and existing COCs newly added to a biogas source category during the next scheduled periodic testing? If so, could the existing periodic schedule be maintained for testing the existing COCs for which limits were revised?

Considering the number of existing interconnections, the joint utilities believe it would be most expeditious, in terms of tracking, if the already scheduled quarterly, annual, and biennial testing schedule for each existing interconnection be maintained to start the testing for the new and revised COCs.

2. Regarding sections 3.1 and 4.1 of the CARB draft report, who is responsible for making the initial determination of the biogas source category into which each new biomethane interconnection facility falls? As well, who is responsible for making the determination regarding possible reclassification of a biomethane interconnection facility if the facility’s biogas source changes from one type to another, or when the source of the majority of the biogas changes?

The joint utilities do not have the ability or oversight authority to determine when a biogas source has changed. This responsibility should fall to the biomethane interconnector. In the scenario of mixed biogas sources, the joint utilities will not have the information necessary to determine which biogas source makes up the majority or minority source and if the distinction between the two fluctuates above or below fifty percent.

### C) Compound Specific Questions/Comments

1. What is meant by “2% Cr VI” in the line item for Chromium (2% Cr VI) under the column labeled Constituent of Concern in Tables 1, 2, and 6? Is it Chromium as Hexavalent Chromium, a percentage limit for Hexavalent Chromium within Chromium, or something else? Which compound should be tested for? Hexavalent Chromium only or total Chromium? Also, please specify which analytical method within EPA Method 29 should be used?
2. Regarding Hydrogen Sulfide, Alkyl Thiols and Sulfur Compounds, in the various tables within the CARB draft report sulfur compounds are shown as “Sulfur Compounds (as S)” indicating test results would be reported as sulfur and not as the compound itself, yet for both Hydrogen Sulfide and Alkyl Thiols (mercaptans), both of which are sulfur compounds, there is no specification for how the testing should be reported. Should they be reported in ppmv sulfur or in ppmv as the compound?

In addition, the joint utilities respectfully request that the final report specify that Alkyl thiols are to be measured at the interconnector point of receipt and not after a joint utility odorizes the biomethane.

3. Regarding Silicon Compounds, are the specific constituents to be tested those listed in the CARB draft report, Appendix A? OEHHA’s *Biogas Constituents of Concern and Health-Protective Levels for Biomethane, 2020 Update Appendix G, Table G-4* only lists D4 (Octamethylcyclotetrasiloxane) and D5 (Decamethylcyclopentasiloxane); it does not list the 9 compounds listed under Silicon Compounds in the CARB draft report, Appendix A.
4. Similarly for Sulfur Compounds, are the specific constituents to be tested the 44 compounds listed in the CARB draft report, Appendix A? It is the joint utilities understanding that only the nine sulfur compounds (these include hydrogen sulfide) listed in OEHHA’s *Biogas Constituents of Concern and Health-Protective Levels for Biomethane, 2020 Update Appendix G, Table G-3* require testing.
5. The joint utilities would like CARB to consider adding the following test methods: NIOSH 7303, EPA 6010B, EPA IO-3.5 for Lead, Antimony, Arsenic, Cadmium, and Chromium and EPA 3542 for N-nitroso-di-n-propylamine.

### Conclusion

The joint utilities appreciate the time you and your staff have spent working through the multitude of technical issues over the past year, the excellent October workshop and the opportunity for us to ask questions and provide comments on the CARB draft report. If you have immediate questions regarding this letter, please contact SoCalGas’ Colby Morrow at (559) 999-3450 who will relay

information to the other joint utilities. Otherwise, we all look forward to the joint CARB/CPUC teleconference on November 29. Thank you again.

Respectfully,

*/s/ Sarah M. Taheri*

Sarah M. Taheri  
Regulatory Affairs Manager  
Southern California Gas Company

*/s/ Fariya Ali*

Fariya Ali  
State Agency Relations  
Pacific Gas and Electric

*/s/ Valerie J. Ontiveroz*

Valerie J. Ontiveroz  
Regulatory Manager/California  
Southwest Gas Corporation.

CC: Colby Morrow