

**SOUTHERN CALIFORNIA GAS COMPANY (SOCALGAS)  
SIERRA CLUB DATA REQUEST 5 (SIERRA CLUB DR-05)  
AMENDED HYDROGEN BLENDING DEMONSTRATION APPLICATION (A.22-09-006)**

**DATE REQUESTED: APRIL 25, 2024  
DATE SUBMITTED: MAY 9, 2024**

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**I. GENERAL OBJECTIONS**

1. SoCalGas objects generally to each request to the extent that it seeks information protected by the attorney-client privilege, the attorney work product doctrine, or any other applicable privilege or evidentiary doctrine. No information protected by such privileges will be knowingly disclosed.
2. SoCalGas objects generally to each request that is overly broad and unduly burdensome. As part of this objection, SoCalGas objects to discovery requests that seek “all documents” or “each and every document” and similarly worded requests on the grounds that such requests are unreasonably cumulative and duplicative, fail to identify with specificity the information or material sought, and create an unreasonable burden compared to the likelihood of such requests leading to the discovery of admissible evidence. Notwithstanding this objection, SoCalGas will produce all relevant, non-privileged information not otherwise objected to that it is able to locate after reasonable inquiry.
3. SoCalGas objects generally to each request to the extent that the request is vague, unintelligible, or fails to identify with sufficient particularity the information or documents requested and, thus, is not susceptible to response at this time.
4. SoCalGas objects generally to each request that: (1) asks for a legal conclusion to be drawn or legal research to be conducted on the grounds that such requests are not designed to elicit facts and, thus, violate the principles underlying discovery; (2) requires SoCalGas to do legal research or perform additional analyses to respond to the request; or (3) seeks access to counsel’s legal research, analyses or theories.
5. SoCalGas objects generally to each request to the extent it seeks information or documents that are not reasonably calculated to lead to the discovery of admissible evidence.
6. SoCalGas objects generally to each request to the extent that it is unreasonably duplicative or cumulative of other requests.
7. SoCalGas objects generally to each request to the extent that it would require SoCalGas to search its files for matters of public record such as filings, testimony, transcripts, decisions, orders, reports or other information, whether available in the public domain or through FERC or CPUC sources.

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8. SoCalGas objects generally to each request to the extent that it seeks information or documents that are not in the possession, custody or control of SoCalGas.
9. SoCalGas objects generally to each request to the extent that the request would impose an undue burden on SoCalGas by requiring it to perform studies, analyses or calculations or to create documents that do not currently exist.
10. SoCalGas objects generally to each request that calls for information that contains trade secrets, is privileged or otherwise entitled to confidential protection by reference to statutory protection. SoCalGas objects to providing such information absent an appropriate protective order.

**II. EXPRESS RESERVATIONS**

1. No response, objection, limitation or lack thereof, set forth in these responses and objections shall be deemed an admission or representation by SoCalGas as to the existence or nonexistence of the requested information or that any such information is relevant or admissible.
2. SoCalGas reserves the right to modify or supplement its responses and objections to each request, and the provision of any information pursuant to any request is not a waiver of that right.
3. SoCalGas reserves the right to rely, at any time, upon subsequently discovered information.
4. These responses are made solely for the purpose of this proceeding and for no other purpose.

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**III. RESPONSES**

**QUESTION 1**

SoCalGas' Response to Data Request SC-SCG-04, Question 22(b) contains presentation slides from a presentation at the Orange Cove Community Center on November 9, 2023 titled "Hydrogen Blending Demonstration Project" starting on page 315 of the PDF response document. Slides 3 and 4 of that presentation (PDF pages 317 and 318) appear to contain embedded videos, titled "Shaping the Future" and "Formando el Futuro." Please provide copies of those videos.

**RESPONSE 1**

The videos embedded in the presentation to the City of Orange cove can be accessed via the links below:

English: <https://vimeo.com/941692020/69a05babb3?share=copy> [vimeo.com]

Spanish: <https://vimeo.com/941691636/e659a935b2?share=copy> [vimeo.com]

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**QUESTION 2**

Sierra Club's Data Request SC-SCG-04, Question 22(c) requested "all emails between SoCalGas and City of Orange Cove representatives regarding the Open System Project." SoCalGas provided one responsive document. In contrast, in response to Question 19 of the same data request, which asks for "all emails between SoCalGas and University of California Irvine employees and representatives," relating to the Closed System Project, SoCalGas' counsel stated in an email that "We previously produced UCI emails totaling 1,359 pages, and I imagine total responsive documents will be somewhat similar to that number." Please confirm that SoCalGas' one responsive document provided in response to Question 22(c) regarding the Open System Project is SoCalGas' complete response.

**RESPONSE 2**

SoCalGas' response to Question 22(c) requesting "all emails between SoCalGas and City of Orange Cove representatives regarding the Open System Project" is complete.

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**QUESTION 3**

SoCalGas' Response to Data Request SC-SCG-04, Question 24 states that "preliminary calculations show that the amount of solar proposed for the project along with battery and hydrogen storage will be sufficient to power the electrolyzer and associated hydrogen production equipment for the entirety of the Closed System Project." Question 24 refers to the Open System Project. Please confirm whether the solar array for the Open System Project will provide 100% of the electricity for the electrolyzer and associated hydrogen production equipment. If it will not, please identify the portion of the electricity that will come from the new solar array and the source of the remainder of the electricity.

**RESPONSE 3**

Yes, based on preliminary calculations showing that the amount of solar proposed for the project along with battery and hydrogen storage will be sufficient to power the electrolyzer and associated hydrogen production equipment for the entirety of the Open System Project. As stated in Chapter 2 testimony, a power interconnection to the electric grid is expected. The solar array is intended to feed excess renewable energy to the electric grid, should there be overproduction. Unforeseen circumstances could result in power draw from the electric grid to support the auxiliary equipment.

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**QUESTION 4**

SoCalGas' Response to Data Request SC-SCG-04, Question 30(b) states that "SoCalGas will offer end-use equipment evaluations to confirm the equipment is working properly, prior to the commencement of hydrogen blending." SoCalGas' response to Question 30(c) further states that "SoCalGas will offer courtesy inspections to confirm the appliances are in safe working order. A SoCalGas customer has the right to refuse or not respond to a courtesy inspection, and therefore, SoCalGas would allow the customer to exercise the right to not accept a courtesy inspection."

- a) If a customer who is located within the Open System Project does not respond to SoCalGas' offer for courtesy inspections of their end-use equipment, will their equipment still receive the hydrogen-blended gas?
- b) Does SoCalGas plan to track which customers have received courtesy inspections and which have not?
- c) Has SoCalGas evaluated the risks of supplying hydrogen-blended gas to appliances that are not "in safe working order" or equipment that is not "working properly"? If so, please provide all analysis that SoCalGas has performed regarding such risks.
- d) If any customers in the Open System Project do not receive a courtesy inspection of their appliances, would SoCalGas' inability to "confirm the appliances are in safe working order" or "confirm the equipment is working properly" prevent SoCalGas from commencing hydrogen blending in the Open System Project?

**RESPONSE 4**

- a. Yes, SoCalGas intends to supply the entire community with the hydrogen blend. It is at the customer's discretion whether to accept the courtesy inspection. At any time during the demonstration, if a customer would like to participate in a courtesy inspection, SoCalGas would also provide one at that time.
- b. Yes.
- c. As it operates today, absent the delivery of hydrogen-blended gas, SoCalGas has existing protocols in place to address equipment that is not in safe working order or working properly. Generally, if SoCalGas finds or is made aware of equipment that is not in safe working order when operating with natural gas, it takes steps to troubleshoot, and in some cases lockout, the equipment until it is returned to safe working order. SoCalGas has not performed its own evaluation on risks of supplying blended gas to equipment in this condition because these same protocols would be in place during the demonstration to promote the safe use of appliances and mitigate any risk. Further, SoCalGas proposes to blend

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from 0.10% to 5% hydrogen by volume in this demonstration and the Hydrogen Blending Impacts Study published by UC Riverside reports that "...in relatively low hydrogen concentrations (1-5% by volume) [hydrogen blending] seems to be viable without significantly increasing risk factors in the storage, transmission, and utilization of hydrogen blends."<sup>1</sup> There is also research that suggests blending in excess of 5% hydrogen by volume should not pose operational issues to residential appliances.<sup>2</sup>

- d. No, a customer's decision to opt-out of a courtesy inspection will not prevent the commencement of the hydrogen blending demonstration. However, as it currently operates today, should SoCalGas find or be made aware of equipment that is not in safe working order at any time before, during, or after the demonstration, it will initiate normal protocols to address the equipment. In the event there are reports of appliance malfunction or safety concerns after hydrogen blending commences, SoCalGas will dispatch a technician to troubleshoot and address the issue as quickly as possible.

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<sup>1</sup> UC Riverside, *Hydrogen Blending Impacts Study* (July 2022) at 107.

<sup>2</sup> For example, see: *Appliance and Equipment Performance with Hydrogen-Enriched Natural Gases* (May 2021), available at: <https://www.csagroup.org/wp-content/uploads/CSA-Group-Research-Appliance-and-Equipment-Performance-with-Hydrogen-Enriched-Natural-Gases.pdf>, and *Impact of Hydrogen/Natural Gas Blends on Partially Premixed Combustion Equipment: NOx Emission and Operational Performance* (February 2022), available at: <https://www.mdpi.com/1996-1073/15/5/1706>.