

**SOUTHERN CALIFORNIA GAS COMPANY (SOCALGAS)  
CAL ADVOCATES-SCG-A2209006-002  
(DR-002) Orange Cove Supplemental  
DATE REQUESTED: July 28, 2025  
RESPONSE DUE: August 11, 2025**

---

**QUESTION 3:**

a) What comprehensive risk assessment has been conducted:

- (i) for SoCalGas' Open Project;
- (ii) for the specific hydrogen blend percentages attempted in SoCalGas' Open Project; and
- (iii) for each segment of the California gas infrastructure for which the pilot project was designed?

e) ..... and how has informed consent been documented?

**RESPONSE 3:**

- a) SoCalGas evaluates baseline risk for asset failure of their medium pressure system as outlined in the RAMP report with an established threshold of annual probability greater than  $6 \times 10^{-6}$  of a serious incident.<sup>1</sup>

Upon authorization to proceed with the project, SoCalGas will develop an in-depth risk analysis for the hydrogen production and blending facility as part of Phase 1 Planning, Design, and Construction. Efforts planned for the project design to identify potential hazards and incorporate appropriate mitigative measures may include:

- Hazard Identification (HAZID),
- Quantitative Risk Assessment (QRA),
- Hazard and Operability Study (HAZOP).

In addition to the scoping and engineering risk assessment, independent third parties will be engaged during the pre-commissioning process to review final design and commissioning safety protocols with SoCalGas and city personnel (Pre-Startup Safety Review – PSSR).

As such, SoCalGas responds to each individual component as follows:

---

<sup>1</sup> SoCalGas's RAMP indicates the baseline risk of incident as follows: "In the absence of an established safety risk threshold from PHMSA and other regulatory bodies, SoCalGas has established a threshold of an annual probability greater than  $6 \times 10^{-6}$  of a serious incident for medium pressure distribution main locations."

**SOUTHERN CALIFORNIA GAS COMPANY (SOCALGAS)**  
**CAL ADVOCATES-SCG-A2209006-002**  
**(DR-002) Orange Cove Supplemental**  
**DATE REQUESTED: July 28, 2025**  
**RESPONSE DUE: August 11, 2025**

- 
- (i) SoCalGas will perform an Asset Failure analysis for the hydrogen production and blending facility, as outlined in detail above
  - (ii) SoCalGas's comprehensive risk analysis will focus on the hydrogen production and blending facility rather than the hydrogen blend percentages proposed in SoCalGas's Open System project, unless directed to do so by the Commission.
  - (iii) SoCalGas's comprehensive risk analysis will focus on the hydrogen production and blending facility rather than each segment of the gas infrastructure proposed in the proposed demonstration project, as these have already been characterized in SoCalGas' RAMP filing as outlined above

e. See Response to Cal Advocates DR SCG-A2209006-002, Q.3.e submitted on 7/31/25.

SoCalGas has not obtained from individual Orange Cove residents and business owners any written or verbal agreements to participate in the demonstration project. SoCalGas nonetheless obtained the approval of the Orange Cove City Council to work with city leaders in implementing the project.<sup>2</sup>

SoCalGas has also engaged extensively with the community through in-person visits to homes and businesses to better understand local concerns and incorporate feedback into the project's design. Because this demonstration project is intended to reflect how hydrogen blending would function across the broader distribution system, therefore it would not be reflective of the intent nor prudent to do so.

---

<sup>2</sup> Refer to Resolution No. 2024-04 City of Orange Cove, see Joint Opposition of SoCalGas, San Diego Gas and Electric (SDG&E), Pacific Gas & Electric (PG&E), and Southwest Gas Corporation (Southwest Gas) to Motion to Dismiss (July 30, 2024), Attachment A: Orange Cove City Council Resolution No. 2024-04, *available at*: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M537/K060/537060074.PDF>.

**SOUTHERN CALIFORNIA GAS COMPANY (SOCALGAS)**  
**CAL ADVOCATES-SCG-A2209006-002**  
**(DR-002) Orange Cove Supplemental**  
**DATE REQUESTED: July 28, 2025**  
**RESPONSE DUE: August 11, 2025**

---

**QUESTION 6:**

Ordering Paragraph 7c of Decision D.22-12-057 requires that the pilots, “Avoids end user appliance malfunctions”.

b) If end user appliances are affected by SoCalGas’ Open Project, how will SoCalGas compensate those affected?

**RESPONSE 6:**

b) SoCalGas is not aware of any appliances that cannot function with 5% hydrogen blend<sup>3</sup>. Moreover, research confirms that common appliances can operate safely with blends up to 20% hydrogen<sup>4</sup> while the Orange Cove demonstration is planned for only 0.1-5% blends. Furthermore, CSA Group, one of the leading organizations in North America for testing, inspecting, and certifying appliances, has recognized product certification remains valid with natural gas blends of up to 5% hydrogen.<sup>5</sup>

Issues with gas appliances that arise during the demonstration will be addressed and documented on a case-by-case basis, in accordance with SoCalGas’s existing processes and procedures. If equipment malfunction occurs during the demonstration, SoCalGas may opt to send the equipment to a lab for root cause analysis, though research indicates this scenario is unlikely. In the event of equipment replacement, SoCalGas will coordinate awareness and availability of existing SoCalGas Energy Savings Assistance Programs.

---

<sup>3</sup> This statement is based on currently available research, appliance certification standards, and SoCalGas’s internal assessments. It does not constitute a warranty or guarantee of appliance performance. Actual appliance compatibility may vary depending on age, condition, and manufacturer specifications. SoCalGas will continue to monitor and evaluate appliance performance throughout the demonstration period.

<sup>4</sup> CPUC, *Hydrogen Blending Impacts Study* (July 18, 2022) at 8, available at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M493/K760/493760600.PDF>, Compendium Report; Hydrogen Blending Compendium Report, Literature Review at 65-66, available at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M556/K896/556896659.PDF>.

<sup>5</sup> ASGE, *CSA Group Revised Position on Certifying Hydrogen & Natural Gas Products in Canada and the US – Recognizes Acceptability of Natural Gas Containing Up to and Including 5% of Hydrogen* (December 12, 2022), available at: <https://asge-national.org/agaupdate-20230428/#:~:text=Update%20on%20End%20Use%20Codes,of%20hydrogen%20with%20natural%20gas>.