APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY FOR ANGELES LINK PHASE 1 REASONABLENESS REVIEW (DATA REQUEST Cal PA-SCG-03)

Date Requested: December 30, 2025 Submitted: January 14, 2026

QUESTION 1:

In the Project Options & Alternatives Study Final Report at 115, SoCalGas defines the Localized Hub project alternative to be "within a 40-mile radius expanding outward from the area of concentrated demand near the Ports of Los Angeles and Long Beach."

a. Explain how SoCalGas determined that the 40-mile radius from the Ports of Los Angeles and Long Beach is the appropriate study area for the Localized Hub project alternative.

b. Provide the anticipated hydrogen demand within the in Localized Hub project area in million tons per year from 2025 to 2045 by sector (Mobility, Power, Industrial) under the Conservative, Moderate, and Ambitious Demand scenarios in a figure similar to that of Figure 2 of the Demand Study Final Report. The format should be the same as the format for Figure 2 of the Demand Study Final Report at page 8.

RESPONSE 1:

SoCalGas objects to this request under Rule 10.1 of the Commission's Rules of Practice and Procedure to the extent it seeks the production of information that is neither relevant to the cost recovery issues in the pending proceeding nor is likely reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, SoCalGas responds as follows.

1a. Please refer to the Project Options & Alternatives Study (Alternatives Study) which notes that the localized hub is centered on the ports of Los Angeles and San Pedro and extending up to the LA Basin mountain ranges, notably the Santa Monica Mountains to the north, San Gabriel Mountains to the northeast and the Santa Ana Mountains to the southeast.[1] This geographic area, with an approximate 40 mile radius, encompasses the Los Angeles Basin, covering central Los Angeles County, portions of the San Fernando Valley, and extending into parts of Orange, Riverside, and San Bernardino counties. As discussed in Section 9.3 of the Decision (at page 43), SoCalGas evaluated the feasibility of a localized clean renewable hydrogen hub solution located in the Los Angeles Basin, with hydrogen generation and end users in close proximity, and thus forming the basis for localized hub evaluation boundary.

1b. SoCalGas objects to the request to the extent it seeks information that is not readily available and would impose an undue burden on SoCalGas by requiring it to perform additional analysis that does not currently exist. Subject to and without waiving the foregoing objections, SoCalGas responds as follows.

The Demand Study was scoped in compliance with the Phase 1 Decision, including identification of hydrogen demand for Angeles Link, its end uses, and potential end-users in

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[1] Angeles Link Alternatives Study, Section 7.1.1 at 115 available at https://www.socalgas.com/sites/default/files/alproject/Angeles-Link-Phase-1-Final-Project-Options-&-Alternatives.pdf.

accordance with the requirements in OP 6(a) and OP 6(c).[2] Consistent with the scope of the Phase 1 Decision, SoCalGas did not develop a demand chart similar to that of Figure 2 provided in the Demand Study specific to the localized hub alternative across conservative, moderate, and ambitious scenarios.

[2] *See* D.22-12-055, Ordering Paragraph (OP) 6(a), (c), at 76.

QUESTION 2:

Identify the number of solar-only electrolysis hydrogen production facilities that would need to come online in each year from 2030 to 2045 to meet the projected hydrogen demand of the Angeles Link project under the 0.5 Mtpa, 1 Mtpa, and 1.5 Mtpa scenarios.

RESPONSE 2:

SoCalGas objects to the request on the grounds it seeks information that is not readily available and would impose an undue burden on SoCalGas by requiring it to perform additional analysis that does not currently exist. Subject to and without waiving the foregoing objections, SoCalGas responds as follows.

The number of hydrogen production facilities that would need to come online is based on projected hydrogen demand. The Demand Study shows the demand curves[3] and throughput scenarios for 2045 by sector[4] for the conservative, moderate and ambitious scenarios. As explained in the Demand Study, the demand profiles are for the total addressable market (TAM) in the SoCalGas service territory.[5]

The annual share of Angeles Link throughput can be interpolated using the demand curves provided in the Demand Study (Figure 2). Applying the production facility design basis provided in the Production Planning & Assessment (Production Study), which assumes each solar-only production facility produces approximately 11,400 tonnes per year (tpy), the annual throughput for each year can be divided by 11,400 tpy to determine the required number of facilities.[6]

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3 Angeles Link Demand Study, Section 0.2 Summary Results, Figure 2: Clean Renewable Hydrogen Demand Forecast in SoCalGas's Service Territory, by Scenario at 8 available at https://www.socalgas.com/sites/default/files/alproject/Angeles-Link-Phase-1-Final-Demand-Study.pdf.

4 Angeles Link Demand Study, Section 5, Figure 22: Angeles Link Throughput Scenarios at 90 available at https://www.socalgas.com/sites/default/files/alproject/Angeles-Link-Phase-1-Final-Demand-Study.pdf.

5 Angeles Link Demand Study, Section 5 Total Addressable Market vs. Angeles Link Throughput Scenarios at 89 available at https://www.socalgas.com/sites/default/files/alproject/Angeles-Link-Phase-1-Final-Demand-Study.pdf.

6 Angeles Link Production Study, Section 9.2, Table 9.1 Hydrogen Facility Scope Assumptions at 54 available at Angeles-Link-Phase-1-Final-Production-Planning-&-Assessment.pdf.

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QUESTION 3:

In the Production Planning & Assessment Final Report at 63, SoCalGas states,
"The following assumptions and scope of supply forms the basis of the cost estimates:

- Estimated Project Cost (EPC) Basis of estimate including all overhead, profit, and contingency
- Overnight cost in 2023$, escalation excluded
- Construction estimates are based on factored estimates from Burns & McDonnell internal database and construction estimating knowledge
- Hydrogen compression and onsite storage excluded
- BOP Equipment: in-house information from similar projects"

Provide the hydrogen production facility cost estimates for each component identified above per facility in $/year or $/kg H2, as appropriate.

RESPONSE 3:

SoCalGas objects to the request on the grounds it seeks information that is not readily available and would impose an undue burden on SoCalGas by requiring it to perform additional analysis that does not currently exist. Subject to and without waiving the foregoing objections, SoCalGas responds as follows.

To calculate the per kg cost for any annual cost item, divide the annual cost by the facility's design basis hydrogen output of 11,400 tpy (11.4 million kg/year) as shown in Table 9.1 (at page 54). The table below lists the components and their source references.

Hydrogen Production Facility Cost Estimates — Per Facility (200 MW PEM + 300 MWac Solar)

Component	Source (Table / Page)
EPC Basis (incl. overhead, profit, contingency)	Table 11.1, p. 64
Overnight cost in 2023$ (escalation excluded)	Section 11.2, p. 63
Construction estimates based on factored B&M database/knowledge	Section 11.2, p. 63
Hydrogen compression excluded	Section 11.2, p. 63
On-site hydrogen storage excluded	Section 11.2, p. 63
BOP Equipment (in-house info from similar projects)	Section 11.2, p. 63; Table 9.1, pp. 54–55
Annual O&M — Solar facility	Table 11.1, p. 64
Annual O&M — Electrolyzer facility	Table 11.1, p. 64
Annual O&M — Total (production)	Table 11.1, p. 64
Electrolyzer stack replacement	Table 11.1, p. 64

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QUESTION 4:

Page 12 and 13 in the Application of Southern California Gas Company (U 904 G) For Authorization to Recover Costs Recorded in its Angeles Link Memorandum Account states, "SoCalGas continued to contribute to ARCHES's efforts in various ways, including participating in working groups, responding to DOE information requests, and providing ARCHES with relevant Phase 1 information to align operational goals. Based on the Angeles Link feasibility work performed in Phase 1, SoCalGas was well-positioned to provide valuable feedback for the benefit of the overall hydrogen economy."

ARCHES issued a "Request for Information: Hydrogen-Dedicated Open-Access Pipelines" dated June 25, 2025. https://archesh2.org/wp-content/uploads/2025/06/RFI_H2_Pipelines-1.pdf.

Did SoCalGas respond to the RFI? If so, please provide the response.

RESPONSE 4:

SoCalGas objects to this request under Rule 10.1 of the Commission's Rules of Practice and Procedure to the extent it seeks the production of information that is neither relevant to the cost recovery issues in the pending proceeding nor is likely reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, SoCalGas responds as follows.

Yes, SoCalGas responded to the RFI. Please refer to the attachment 'ALP1-RR_A2506011_DR_CalPA_03_Q04_Attach_SoCalGas Response to ARCHES Request for Info_2506027.pdf'.