



Angeles Link – Phase 1 Quarterly Report (Q2 2024)

For the period of April 1, 2024 through June 30, 2024

August 2024

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I. BACKGROUND

On December 15, 2022, the California Public Utilities Commission (CPUC) adopted Decision (D.) 22-12-055 (Decision) authorizing the establishment of SoCalGas’s Angeles Link Memorandum Account (Memorandum Account) to track costs for advancing the first phase of Angeles Link. SoCalGas established the Memorandum Account on December 21, 2022.

The objective of Angeles Link is to develop a non-discriminatory pipeline system that is dedicated to public use to transport clean renewable hydrogen¹ from regional third-party production and storage sites to end users in Central and Southern California, including the Los Angeles Basin. The CPUC recognized clean renewable hydrogen “has the potential to decarbonize the state and the Los Angeles Basin’s energy future and bring economic opportunities and new jobs to the region.”²

To increase transparency and gain valuable feedback, SoCalGas proposed in its Phase 1 Application for Angeles Link to submit interim reports to the CPUC and the public regarding status and updates. Pursuant to Ordering Paragraph (OP) 3(h) of the Decision,³ SoCalGas hereby submits this Quarterly Report, for the period April 1, 2024 through June 30, 2024 (Q2-2024). In compliance with the Decision, this report is also served on the service list for the Angeles Link proceeding⁴ and is publicly available at:<https://www.socalgas.com/sustainability/hydrogen/angeles-link>.

II. PLANNING ADVISORY GROUP AND COMMUNITY BASED ORGANIZATION STAKEHOLDER GROUP ACTIVITY SUMMARY

During this reporting period, in compliance with the Decision’s directive to conduct quarterly stakeholder engagement meetings, one joint virtual update meeting and two quarterly meetings were held, one with the Planning Advisory Group (PAG) and one with the Community Based Organization Stakeholder Group (CBOSG). In addition, throughout April and June 2024, the Angeles Link team expanded their Regional Outreach Efforts. These were informational meetings with a diverse group of organizations representing agriculture, business/economic development, community-based organizations, environmental justice organizations, environmental non-governmental organizations, and local government officials. Meetings were held in-person and virtually over Zoom. These meetings are discussed in further detail below.

April 2024 Virtual Joint Update Meeting

SoCalGas hosted one virtual joint update meeting in the month of April, where SoCalGas provided a status update on Angeles Link Phase 1 Studies and provided an overview of a new streamlined process for releasing and taking input on preliminary findings and draft reports. SoCalGas also reviewed proposed revisions to the CBOSG compensation plan and presented a proposed meeting calendar for the remainder of Phase 1.

¹ Per the Decision (D.22-12-055) at 9, “clean renewable hydrogen” is defined as hydrogen produced with a carbon intensity equal to or less than four kilograms of carbon dioxide-equivalent produced on a lifecycle basis per kilogram and does not use any fossil fuel in its production process.

² D.22-12-055 at 2.

³ *Id.* at 74-75.

⁴ A.22-02-007

June 2024 Quarterly Meetings

SoCalGas hosted two quarterly meetings (one PAG and one CBOSG) in the month of June. At the June 18 CBOSG and June 21 PAG quarterly meetings, SoCalGas presented draft reports for the Project Options and Alternatives Study (Alternatives Stud) and the High-Level Economics and Cost Effectiveness Study (Cost Effectiveness Study), and the preliminary findings of the Environmental Analysis. The CBOSG meeting included a third-party panel discussion on community benefits, featuring experts in community benefit plans, workforce, and economic development.

Expanded Regional Outreach Efforts

In response to PAG and CBOSG feedback, SoCalGas expanded its engagement beyond the CBOSG members to reach out to organizations within the broader region of SoCalGas territory, including the San Joaquin Valley, Santa Clarita Valley, Antelope Valley, and San Fernando Valley to provide information about Angeles Link and offer them opportunities to stay informed. Over the Q2 2024 reporting period, SoCalGas met with 29 organizations as part of the expanded engagement efforts. In accordance with the Phase 1 Decision,⁵ costs associated with these activities will not be recorded to the Angeles Link Memorandum Account for cost recovery.

Preliminary Findings & Draft Reports

During this reporting period, SoCalGas shared the preliminary data and findings for several Phase 1 studies. This included information on the Preliminary Routing/Configuration Analysis (Routing Analysis), which also included Right-of-Way (ROW) and Franchise information, Production Planning & Assessment (Production Study), Plan for Applicable Safety Requirements (Safety Study), Workforce Planning & Training Evaluation (Workforce Study), High-Level Feasibility Assessment & Permitting Analysis (Permitting Study), Pipeline Sizing & Design Criteria (Design Study), Alternatives Study, Cost Effectiveness Study, and Environmental Analysis & the Environmental Social Justice (ESJ) Analysis (which was separated into two independent studies: Environmental Analysis and t ESJ Plan and Screening). Additionally, SoCalGas provided the draft Hydrogen Leakage Assessment (Leakage Study) and Safety Study. The preliminary findings and draft Reports provided during the reporting period are provided in Appendix 1. Comment letters received during the reporting period are provided in Appendix 2, and SoCalGas responses to those comment letters are provided in Appendix 3.

⁵ D.22-12-055.

Table 1: Index of Comment Letters Received During Q2 2024

Comment Letter	Date of Letter	Commenter
Preliminary Data and Findings (Routing Analysis, Production Study, Safety Study, Workforce Study, and Permitting Analysis) (Comment Period April 17 – May 3, 2024)		
1	May 3	Air Products
2	May 3	Cal Advocates
3	May 3	Communities for a Better Environment
4	May 3	Food and Water Watch
5	May 3	Protect Playa Now
Preliminary Data and Findings (Design Study, Alternatives Study, and Cost Effectiveness Study) (Comment Period May 21 – June 4, 2024)		
6	May 30	Green Hydrogen Coalition
7	June 4	Cal Advocates
8	June 4	Communities for a Better Environment
9	June 4	Food and Water Watch
10	June 4	Protect Playa Now
Preliminary Data and Findings (Environmental Analysis & the ESJ Screening) (Comment Period June 11 – June 25, 2024)		
11	June 25	Communities for a Better Environment
Draft Study (Leakage Study) (Comment Period May 29 – June 26, 2024)		
12	June 26	Environmental Defense Fund and Natural Resources Defense Council
13	June 26	Communities for a Better Environment
14	June 26	Food and Water Watch

III. COMMENTS AND RESPONSES TO STAKEHOLDER FEEDBACK

In compliance with D.22-12-015, Ordering Paragraph (OP) 3(h), SoCalGas sought feedback from the PAG and CBOSG (Appendix 2 – PAG/CBO Written Comments), summarized in this Quarterly Report, and provided responses to comments (Appendix 3 - SoCalGas Responses to Comments). SoCalGas appreciates the continued engagement of the PAG and CBOSG throughout the stakeholder engagement process and the continued active participation in the stakeholder workshops and meetings. Completion of the draft Phase 1 studies continues to be an iterative process and the feedback and insights provided by members of the PAG and CBOSG at various junctures have been and will continue to be carefully considered.

SoCalGas received PAG and CBOSG member input verbally, through in-person and virtual attendee comments and discussions at workshops or via Zoom, or in writing through email. Feedback was often relayed as part of a PAG and CBOSG discussion, and, in many cases, responses were provided in real time. As noted above, formal written communications have been included as Appendix 2 and SoCalGas provided responses to written comments in Appendix 3.

A complete list of meeting participants is included in Appendix 4 - Attendee list for PAG and CBOSG meetings, as well as those invited who were not in attendance. For additional details on verbal feedback and meeting discussions, please refer to court reporter transcripts of second quarter meetings (Appendix 5 - Transcripts). CBOSG and PAG meeting materials are provided in Appendices 6 and 7, respectively. Links to PAG and CBOSG meeting recordings are in Appendix 8, and summaries of CBOSG and PAG stakeholder meetings are in Appendix 9 and 10, respectively.

A. Summary of General Comments

This summary provides an overview of key topics that were raised during the meetings and workshops and in written comments during the Q2 2024 period. General responses, referred to as “global responses,” together with detailed responses to written comments received during the Q2 2024 period are included in Appendix 3.

- **Stakeholder Engagement Process:** Some commenters stated that SoCalGas did not include details or analysis in its preliminary findings, did not provide adequate time for comments, and used marketing and/or promotional language in the preliminary findings.
- **Hydrogen Leakage:** Some commenters stated the assessment did not include detailed information or information regarding potential leakage associated with end use, last mile delivery or a large leakage event.
- **Preliminary Routing/Configuration Analysis (including ROW and Franchise):** Some commenters stated that the transmission ROW analysis was too narrow, pipeline routes needed to avoid traversing disadvantaged communities (DACs), and the Routing Analysis preliminary findings may not align with the Alliance for Renewable Clean Energy Systems (ARCHES).
- **Production:** Some commenters stated that the Production Study should provide assumptions for the amount of land required; address land availability constraints; consult with local, state and federal governments on the feasibility of production areas; and assess the role of storage and curtailed renewable generation.

- **Economic Analysis & Cost Effectiveness:** Some commenters inquired about assessing potential ratepayer impacts, especially on low-income communities, storage requirements, overall project cost, and how potential funding is addressed.
- **ESJ Screening:** Commenters expressed a concern around lack of providing detailed data, including more granular maps and routes.

IV. ALLIANCE FOR RENEWABLE CLEAN HYDROGEN ENERGY SYSTEMS

ARCHES is California’s public-private hydrogen hub consortium to accelerate the development and deployment of clean, renewable energy sources to reduce Greenhouse Gas (GHG) emissions and advance to a zero-carbon economy.⁶ Consistent with D.22-12-055, SoCalGas joined ARCHES in October 2022 and was included in the proposal under ARCHES application to the U.S. Department of Energy (DOE) for federal funding of a clean hydrogen hub. On October 13, 2023, the DOE announced that, after a rigorous application and review process, ARCHES was one of seven hydrogen hubs selected to receive up to \$1.2 billion in federal funding.⁷ On July 17, 2024, outside the time period of activities addressed in this Q2 report, ARCHES and the DOE announced the signing of a formal \$12.6 billion cooperative agreement, including up to \$1.2 billion of cost share from the DOE and \$11.4 billion in public and private matching funds, to build and expand clean energy infrastructure across California.

V. PHASE 1 FEASIBILITY STUDIES UPDATE

SoCalGas is required to submit Quarterly Reports to the Commission’s Deputy Executive Director for Energy and Climate Policy on the progress of the Phase 1 activities and to report any preliminary results and findings regarding the feasibility studies included in Phase 1.⁸ This section provides key updates from this reporting period on the status of the feasibility studies being undertaken in compliance with the Decision, in furtherance of Angeles Link. The study updates provided herein may be subject to further modification given PAG and CBOSG input and may also change based on results from other studies, and/or other variables.

The summary provided in the table below include activities that occurred within the current quarter (i.e., April to June 2024), activities that occurred prior to this quarter related to key milestones (preliminary findings and draft report), and activities that occurred after the close of the quarter but prior to the release of this quarterly report (shown in parenthesis). SoCalGas expects to publish all of the final studies with the PAG and CBOSG in Q3 2024.

⁶ Regional Clean Hydrogen Hubs. Accessible at: <https://www.energy.gov/oced/regional-clean-hydrogen-hubs-0>

⁷ California wins up to \$1.2 billion from feds for hydrogen Accessible at: <https://archesh2.org/california-wins-up-to-1-2-billion-from-feds-for-hydrogen/>

⁸ D.22-12-055 at 74-75, OP 3(h).

A. Market Assessment & Alternatives

Demand Study	
Overview	The Decision requires SoCalGas to identify hydrogen demand, end uses, and potential end-users (including current natural gas customers and future customers) of Angeles Link. ⁹ SoCalGas is evaluating potential clean renewable hydrogen demand and assessing adoption in the Mobility, Power Generation, and Industrial sectors.
Progress Summary	<p>Over the reporting period, SoCalGas made progress on the Final Demand Study, incorporating feedback from PAG and CBOSG gathered over current and previous quarters.</p> <p>Previously, SoCalGas issued preliminary findings to PAG and CBOSG on August 21, 2023. Feedback on the preliminary findings was due September 25, 2023. SoCalGas shared the draft study with the PAG and CBOSG on January 17, 2024. Feedback on the draft study was due on February 23, 2024.</p>

⁹ *Id.* at 75-76, OP 6 (a) and OP 6 (c).

Production Planning & Assessment (Production Study)	
Overview	The Decision requires SoCalGas to identify the potential sources of hydrogen generation for Angeles Link ¹⁰ and its plans to ensure the quality of the hydrogen gas meets the clean renewable hydrogen standards. ¹¹ SoCalGas is evaluating potential sources of clean renewable hydrogen production from renewable sources such as solar and wind, input requirements, estimated cost of production, and policies and procedures.
Progress Summary	<p>Over the reporting period, SoCalGas continued to advance the Production Study to include content and findings for the draft report. In addition, feedback received regarding land availability assumptions, the role of storage, and the role of electric curtailments were further considered in the report.</p> <p>(The draft study was issued to the PAG and CBOSG on July 19, 2024, and was presented to CBOSG and PAG on July 23 and July 24, 2024, respectively. Feedback is due on August 14, 2024.)</p> <p>Previously, SoCalGas issued the preliminary findings to PAG and CBOSG on April 11, 2024. Feedback on the preliminary findings was due May 3, 2024.</p>

¹⁰ *Id.* at 75-76, OP 6 (b).

¹¹ *Id.* at 75-76, OP 6 (j).

Project Options and Alternatives Study (Alternatives Study)	
Overview	The Decision required SoCalGas to consider and evaluate project alternatives, including a localized hydrogen hub or other decarbonization options such as electrification. ¹² SoCalGas is also required to study a localized hydrogen hub solution under the specifications required to be eligible for federal funding as part of Phase 1. ¹³ SoCalGas is evaluating project options and alternatives, including other hydrogen delivery alternatives and non-hydrogen alternatives.
Progress Summary	Over the reporting period, SoCalGas continued the evaluation of options and alternatives for non-hydrogen alternatives as well as other hydrogen delivery alternatives. SoCalGas issued the preliminary findings to PAG and CBOSG on May 21, 2024. Feedback on the preliminary findings was due June 4, 2024. SoCalGas presented a preview of the draft study to PAG and CBOSG on June 21 and June 18, 2024, respectively. (The draft study was issued to PAG and CBOSG on July 26, 2024. Feedback is due on August 23, 2024.)

¹² *Id.* at 75-76, OP 6 (d).

¹³ *Id.* at 73-74, OP 3 (c).

High-Level Economic Analysis & Cost Effectiveness Study (Cost Effectiveness Study)	
Overview	<p>The Decision requires SoCalGas to evaluate the cost effectiveness of Angeles Link against alternatives and determine a methodology to measure cost effectiveness between alternatives.¹⁴ SoCalGas is developing methodology used to measure cost effectiveness, including gathering cost estimates, performing an economic analysis to estimate at a high level the levelized cost of clean renewable hydrogen (LCOH), and comparing the cost effectiveness of Angeles Link against various project alternatives.</p>
Progress Summary	<p>Over the reporting period, SoCalGas made further progress to measure cost effectiveness of Angeles Link and alternatives, including a comparative analysis to determine the cost effectiveness of hydrogen delivery alternatives and non-hydrogen alternatives. SoCalGas issued the preliminary findings to PAG and CBOSG on May 21, 2024. Feedback on the preliminary findings was due June 4, 2024. SoCalGas presented a preview of the draft study to PAG and CBOSG on June 21 and June 18, 2024, respectively.</p> <p>(The draft study was issued to PAG and CBOSG on July 26, 2024. Feedback is due on August 23, 2024.)</p>

¹⁴ *Id.* at 75-76, OP 6 (d).

B. Regulatory, Policy & Environmental

Water Resource Evaluation (Water Study)	
Overview	The Decision requires SoCalGas to identify the potential sources of clean renewable hydrogen generation and water and estimate the costs of the hydrogen for Angeles Link. ¹⁵ SoCalGas is evaluating the availability of water resources for third-party clean renewable hydrogen production in the Central and Southern California regions.
Progress Summary	<p>Over the reporting period, SoCalGas continued to finalize the draft Water Study by incorporating stakeholder feedback. (The draft study was issued to PAG and CBOSG on July 5, 2024. Feedback is due on August 2, 2024.)</p> <p>Previously, SoCalGas issued the preliminary findings to PAG and CBOSG on March 1, 2024. Feedback on the preliminary findings was due on March 29, 2024.</p>

Hydrogen Leakage Assessment (Leakage Study)	
Overview	The Decision directs SoCalGas to assess the risks and mitigations for hydrogen leakage. ¹⁶ SoCalGas is evaluating potential hydrogen leakage associated with third-party production, third-party storage, compression, and transmission of hydrogen. The assessment will also identify and evaluate potential mitigation measures.
Progress Summary	<p>Over the reporting period, SoCalGas finalized the draft Leakage Study for issuance to the PAG and CBOSG. SoCalGas issued the draft study to the PAG and CBOSG on May 29, 2024. Feedback on the draft Report was due on June 26, 2024.</p> <p>Previously, SoCalGas presented a preview of the draft study to PAG and CBOSG on February 15, 2024, and issued the preliminary findings to PAG and CBOSG on February 27, 2024. Feedback on the preliminary findings was due on March 29, 2024.</p>

¹⁵ *Id.* at 75-76, OP 6 (b).

¹⁶ *Id.* at 75-76, OP 6 (g).

Nitrogen Oxide (NOx) and other Air Emissions Assessment (NOx Study)	
Overview	<p>The Decision requires SoCalGas to assess potential NOx emissions associated with Angeles Link, including appropriate controls to mitigate emissions.¹⁷ SoCalGas is evaluating NOx associated with third-party production, third-party storage and transmission of hydrogen, as well as NOx emissions associated with displacement of fossil fuels by hydrogen at end users. Key areas of focus include the Mobility, Power Generation, and Hard-to-Electrify Industrial end use sectors. SoCalGas is also identifying and evaluating potential opportunities to minimize NOx emissions. Finally, SoCalGas is evaluating anticipated VOC and PM emission reductions at end users.</p>
Progress Summary	<p>Over the reporting period, SoCalGas continued to progress the Nitrogen Oxide (NOx) and other Air Emissions Assessment. (The draft study was issued to PAG and CBOSG on July 16, 2024. Feedback is due on August 13, 2024.)</p> <p>Previously, SoCalGas presented a preview of the draft study to PAG and CBOSG on December 12 and December 15, 2023, respectively. SoCalGas issued the preliminary findings to PAG and CBOSG on March 21, 2024. Feedback on the preliminary findings was due on April 5, 2024.</p>

¹⁷ *Id.* at 75-76, OP 6 (h).

Greenhouse Gas (GHG) Emissions Evaluation (GHG Study)	
Overview	<p>The Decision directs SoCalGas to provide the findings from Phase 1 feasibility studies demonstrating compliance with environmental laws and public policies.¹⁸ To support evaluation of environmental laws and public policies, SoCalGas is conducting an evaluation of anticipated GHG reductions associated with Angeles Link. To conduct this evaluation, SoCalGas is estimating GHG emissions associated with third-party production, third-party storage, and transmission of hydrogen, as well as GHG emissions associated with the displacement of fossil fuels by hydrogen at end users. Key areas of focus include the Mobility, Power Generation, and Hard-to-Electrify Industrial end use sectors.</p>
Progress Summary	<p>Over the reporting period, SoCalGas continued to progress the GHG Emissions Evaluation report.</p> <p>(The draft study was issued to PAG and CBOSG on July 10, 2024. Feedback was due on August 7, 2024.)</p> <p>Previously, SoCalGas issued the GHG emissions evaluation preliminary findings to PAG and CBOSG on February 27, 2024. Feedback on the preliminary findings was due on March 29, 2024. SoCalGas presented a preview of the study to CBOSG/PAG on December 13 and December 15, 2023, respectively.</p>

¹⁸ *Id.* at 75-77, OP 6 (n).

Environmental Analysis	
Overview	<p>The Decision directs SoCalGas to consider how the planning process considers and evaluates project alternatives, including a localized hydrogen hub or other decarbonization options such as electrification, their costs and their environmental impacts,¹⁹ as well as to identify and compare possible routes and configurations,²⁰ and to provide the findings from Phase 1 feasibility studies demonstrating compliance with California environmental law and public policies.²¹</p>
Progress Summary	<p>Over the reporting period, work continued to progress for the Environmental Analysis, including impact evaluations for the proposed pipeline system and alternatives. The preliminary findings for the Environmental Analysis and Environmental Social Justice (ESJ) Analysis (renamed to ESJ Screening and subsequently broken out from the Environmental Analysis as explained further herein) were issued to PAG and CBOSG on June 11, 2024. Feedback on the preliminary findings was due on June 25, 2024. SoCalGas also presented the Environmental Analysis preliminary findings to the CBOSG and PAG on June 18 and June 21, 2024, respectively.</p> <p>During the reporting period and in response to stakeholder feedback, the ESJ Screening was broken out from the Phase 1 Environmental Analysis and was made part of the Environmental Social Justice (ESJ) Community Engagement Plan (described further below). The ESJ Screening will guide the identification of stakeholders and ESJ Communities to engage in Phase 2 of Angeles Link.</p> <p>(The draft analysis was issued to PAG and CBOSG on July 26, 2024. Feedback is due on August 23, 2024.)</p>

¹⁹ *Id.* at 75-77, OP 5 (e).

²⁰ *Id.* at 75-77, OP 6 (i).

²¹ *Id.* at 75-77, OP 6 (n).

ESJ Plan and ESJ Screening	
Overview	<p>The Decision requires SoCalGas to address and mitigate impacts to disadvantaged communities and other environmental justice concerns.²² SoCalGas is preparing an ESJ Plan to engage communities living near potential preferred routes and to create an opportunity to hear from the community. SoCalGas is also preparing an ESJ Screening. The ESJ Screening was initially part of the Environmental Analysis; however, given that the ESJ Screening will guide SoCalGas’s future stakeholder engagement efforts summarized in the ESJ Plan, the ESJ Screening was subsequently made part of the ESJ Plan.</p>
Progress Summary	<p>Over the reporting period, the preliminary findings of the ESJ Screening were issued to PAG and CBOSG on June 11, 2024 (included with the preliminary findings of the Environmental Analysis).²³ Feedback on the preliminary findings was due on June 25, 2024.</p> <p>(The draft ESJ Plan and Screening was issued to PAG and CBOSG on July 19, 2024. Feedback is due on August 13, 2024. The draft ESJ Plan was presented to the CBOSG and PAG and CBOSG on July 23 and July 24, 2024, respectively.)</p>

²² *Id.* at 75-77, OP 6 (l).

²³ The ESJ Plan primarily serves as a stakeholder engagement document that outlines strategies and goals for engagement in Phase 2; as such, the ESJ Plan did not lend itself to preliminary findings.

High-Level Feasibility Assessment & Permitting Analysis (Permitting Analysis)	
Overview	The Decision requires SoCalGas to identify and compare possible routes and configurations for Angeles Link. ²⁴ SoCalGas is conducting a high-level assessment of potential environmental and regulatory approvals, including federal, state, and local environmental permitting and regulatory approvals, regulatory approval timing, and environmental constraints.
Progress Summary	<p>Over the reporting period, SoCalGas continued the process of evaluating potential environmental and regulatory approvals that could be needed for Angeles Link at state and federal levels. SoCalGas published preliminary findings to PAG and CBOSG on April 11, 2024. Feedback was due on May 3, 2024.</p> <p>(The draft analysis was issued to PAG and CBOSG on July 19, 2024 and the draft analysis was discussed at the CBOSG and PAG meetings on July 23 and July 24, 2024, respectively. Feedback on the draft analysis is due on August 16, 2024.)</p>

²⁴ *Id.* at 75-76, OP 6 (i).

C. Engineering Design

Preliminary Routing/Configuration Analysis (including ROW and Franchise) (Routing Analysis)	
Overview	<p>The Decision requires SoCalGas to identify and compare possible routes and configurations for Angeles Link.²⁵ The study aims to:</p> <ol style="list-style-type: none"> 1. Determine several preferred routing/configuration alternatives for the hydrogen system for Phase 1. 2. Evaluate technical considerations, and other potential geographical and urban challenges. 3. Consider existing pipeline corridors or rights-of-way, other known existing rights-of-way, franchise rights, designated federal energy corridors or rights-of-way.²⁶
Progress Summary	<p>Over the reporting period, SoCalGas performed the following:</p> <ol style="list-style-type: none"> 1. Preliminary Routing: identification of routing features and the integration of information from other studies continued. Possible preferred routes were developed to include two SoCalGas pipeline segments (one located in San Joaquin Valley and one from Lancaster to LA Basin) included in the ARCHES H2Hub Application. Additionally, one route variation was identified in alignment with ESJ Screening findings and response to stakeholder comments. 2. Integration of Land Rights Information: integrated information related to land rights, including preliminary identification of existing Direct Land Rights and rights to use Rights of Way pursuant to a municipal franchise agreement for preliminary pipeline segments. <p>SoCalGas published the preliminary findings to PAG and CBOSG on April 11, 2024. Feedback was due on May 3, 2024.</p> <p>(The draft analysis was issued to PAG and CBOSG on July 19, 2024. The study was presented to PAG and CBO on July 24 and July 23, 2024, respectively. Feedback on the draft analysis is due on August 16, 2024.)</p> <p>Previously, SoCalGas presented a preview of the draft study preliminary findings to CBOSG and PAG on March 4 and 5, 2024, respectively.</p>

²⁵ *Id.* at 75-76, OP 6 (i).

²⁶ Given the relationship with the routing analysis, right-of-way and franchise information will be integrated within the Routing Analysis.

Pipeline Sizing & Design Criteria (Design Study)	
Overview	The Decision requires SoCalGas to compare possible routes and configurations. ²⁷ SoCalGas is estimating potential range of pipeline sizes for the pipeline route from production to end-use, identifying potential materials for pipeline, fittings, and differences in operational equipment, discussing pressures and maintenance operations associated with design, and evaluating compression characteristics and options.
Progress Summary	Over the reporting period, SoCalGas continued data collection and analysis from other studies (e.g., Demand Study, Production Study) to develop hydraulic modeling cases. The hydraulic models were used to evaluate preliminary pipeline sizing, pressure, and flow, compression requirements, and pipeline material selection. SoCalGas published preliminary findings to PAG and CBOSG on May 21, 2024. Feedback was due on June 4, 2024. (SoCalGas issued the draft report to PAG and CBOSG on July 19, 2024. Feedback is due on August 16, 2024.)

²⁷ *Id.* at 75-76, OP 6 (i).

Plan for Applicable Safety Requirements (Safety Study)	
Overview	The Decision requires SoCalGas to evaluate safety concerns involved in pipeline transmission, storage, and transportation of hydrogen applicable to Angeles Link. ²⁸ SoCalGas is evaluating safety concerns and developing an assessment of applicable safety requirements for employee, contractor, system, and public safety.
Progress Summary	Over the reporting period, SoCalGas continued to assess and review applicable safety requirements to evaluate how those requirements may apply to Angeles Link. SoCalGas published the preliminary findings to PAG and CBOSG on April 11, 2024. Feedback was due on May 3, 2024. SoCalGas published the draft Report on June 21, 2024. Feedback on the draft Report was due on July 19, 2024. Third-party review of this evaluation is being conducted by the Department of Energy (DOE) Hydrogen and Fuel Cells Technology Office’s established Hydrogen Safety Panel.

Workforce Planning & Training Evaluation (Workforce Study)	
Overview	The Decision requires SoCalGas to evaluate workforce planning and training. ²⁹ SoCalGas is evaluating operations and maintenance protocols for utility workers regarding hydrogen infrastructure and workforce needs in terms of staging and growth for Angeles Link.
Progress Summary	Over the reporting period, SoCalGas continued to evaluate potential planning and workforce training applicable to Angeles Link, which includes a preliminary assessment of jobs created. SoCalGas published preliminary findings to PAG/CBOSG on April 11, 2024. Feedback was due on May 3, 2024. (The draft report was issued to PAG and CBOSG on July 5, 2024. Feedback was due on August 2, 2024.) Previously, on March 4 and 5, 2024, SoCalGas presented the draft study to CBOSG and PAG, respectively.

²⁸ *Id.* at 75-76, OP 6 (f).

²⁹ *Id.* at 75-76, OP 6 (e).