

Application: A.24-12-XXX
Exhibit No: _____
Witness: Amy Kitson

**PREPARED DIRECT TESTIMONY OF
AMY KITSON
ON BEHALF OF
SOUTHERN CALIFORNIA GAS COMPANY**

(CHAPTER 3 – PROJECT DEVELOPMENT AND PROGRAMMATIC ACTIVITIES)

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

December 20, 2024

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1 **PREPARED DIRECT TESTIMONY OF**
2 **AMY KITSON**
3 **(PROJECT DEVELOPMENT AND PROGRAMMATIC ACTIVITIES)**

4 **I. INTRODUCTION/PURPOSE OF TESTIMONY**

5 My name is Amy Kitson, and I am the Director of Angeles Link - Engineering &
6 Technology for Southern California Gas Company (SoCalGas or Company). My testimony
7 supports the Application for Authorization to Implement Revenue Requirement for Costs to
8 Enable Commencement of Phase 2 Activities for Angeles Link (Application). The purpose of
9 my testimony is to describe the scope and costs of certain project development and programmatic
10 activities, such as refined system design, safety, environmental, and related technical analyses
11 that would help inform Pre-FEED and FEED; continued stakeholder and community
12 engagement, which SoCalGas proposes to expand and continue during Phase 2; and project
13 controls and management activities to support the prudent execution of Phase 2 of Angeles
14 Link.¹

15 **II. PHASE 2 ACTIVITIES OVERVIEW**

16 As described in the Testimony of Neil Navin, the Phase 1 activities for Angeles Link, as
17 authorized to be tracked in the Angeles Link Memorandum Account (ALMA) in Decision (D.)
18 22-12-055 (Phase 1 Decision), included (1) completion of feasibility studies, plans, and related
19 analyses, (2) supporting the Alliance for Renewable Clean Hydrogen Energy System (ARCHES)
20 in its application for federal funding for the California Hydrogen Hub, (3) robust stakeholder
21 engagement with the Planning Advisory Group (PAG) and community based organizations

¹ Phase 2 activities related to pre-Front End Engineering Design (FEED), FEED, and Class 3 cost estimating activities, and their associated costs are presented separately in the Testimony of Brian Walker.

1 stakeholder group (CBOSG), and (4) quarterly reporting to the Commission and stakeholders. In
2 Phase 2, SoCalGas proposes to build off the activities conducted during Phase 1 to gather
3 additional data and stakeholder input and refine initial findings that will help SoCalGas identify a
4 preferred system route for Angeles Link and, upon its selection, further advance engineering and
5 operations evaluations and plans to 30% design. Just as it did during the execution of Phase 1
6 studies, SoCalGas expects to learn new information that will inform or influence Phase 2
7 activities (e.g., information concerning clean renewable hydrogen producers, end users,
8 technology developments, etc.). Accordingly, SoCalGas will maintain a level of flexibility to
9 conduct Phase 2 activities with the most current information available.

10 As discussed in the Testimony of Brian Walker, SoCalGas currently estimates that Phase
11 2 activities would take approximately 30 months to complete, with an estimated cost of \$266
12 million, fully loaded and escalated.² The subset of costs presented in this testimony associated
13 with project development and programmatic activities, including stakeholder engagement
14 activities, are estimated to be approximately \$50 million, consisting predominantly of company
15 labor, external resources, and administrative and other expenses.

16 Phase 2 activities described in this testimony fall under four main categories: (1)
17 Engineering, Technology, and Economics; (2) Hydrogen System Supply and End Uses; (3)
18 Regulatory and Project Management; and (4) Stakeholder Engagement. I elaborate on each
19 category below. Some of the activities described in my testimony will be conducted in parallel
20 to, and integrated iteratively into, the pre-FEED and FEED activities described by Mr. Walker.

² This assumes certain contracting activities are conducted in 2025, as described in Mr. Walker's testimony.

1 A summary of costs for the subset of Phase 2 activities supported by this testimony is provided
2 below.

3 **A. Impact of California Hydrogen Hub on Angeles Link**

4 As described in the Testimony of Maryam Brown, Angeles Link is an integral part of the
5 California Hydrogen Hub, and SoCalGas intends to work diligently to meet ARCHES'
6 operational timing goals. SoCalGas expects regular coordination activities with ARCHES will
7 include: (i) sharing updates and information with respect to the development of Angeles Link
8 and the other projects within the California Hydrogen Hub network and other areas of mutual
9 interest; (ii) sharing information beneficial to the development of the California Hydrogen Hub
10 and Angeles Link, which may include, but is not limited to, technical engineering and locational
11 information to facilitate connectivity among producers and end users, technical specifications for
12 hydrogen, information related to environmental reviews, and information regarding project
13 schedules and stakeholder engagement; (iii) participating in relevant aspects of the California
14 Hydrogen Hub development process and in the California Hydrogen Hub participants' offtake
15 and production discussions, including discussions with producers and customers; and (iv)
16 assisting one other in meeting timing and schedule goals such as through information sharing on
17 market development, community engagement, permitting and approvals support, and other
18 technical cooperation. Some of the activities described in my testimony may be completed in
19 coordination with ARCHES and/or other ARCHES members.

20 **III. PHASE 2 ACTIVITIES**

21 As described by Mr. Walker, at the onset of Phase 2, SoCalGas will advance conceptual
22 designs, further analyze potential system routes identified in Phase 1, and then identify a single
23 preferred system route. Upon identification of the preferred system route, SoCalGas will

1 complete refined engineering for the preferred system route to 30% design. Pre-FEED, FEED,
2 and cost estimating and planning activities are discussed by Mr. Walker. Below, I discuss the
3 project development and programmatic activities that will provide information needed to identify
4 a preferred system route and conduct Pre-FEED and FEED work, support further evaluation of
5 the identified preferred system route, and support advancing Angeles Link. Pipeline routing will
6 be refined throughout Phase 2 following an iterative engineering process and further analysis of
7 hydrogen demand and hydrogen production planning. SoCalGas will also perform project-wide
8 management, strategy, and oversight, financial, and change management activities. Lastly,
9 SoCalGas will expand its stakeholder engagement activities to meet with and solicit input from a
10 broader range of stakeholders, including the communities, their representatives, and tribal
11 governments along potential routes.

12 **A. Engineering, Technology, and Economics**

13 Phase 2 activities will include pipeline engineering and system design, safety and
14 workforce planning, and technology and cost analyses to support pre-FEED and FEED activities
15 for Angeles Link. The work described in this section will support the progress of technical
16 deliverables and is incremental to the activities described by Mr. Walker.

17 **1. System Evaluation, Engineering Support, and Route Selection**

18 Phase 2 would include system evaluation, engineering support, and route selection
19 activities that account for operational considerations to support the pre-FEED and FEED work
20 described by Mr. Walker. For example, Phase 2 would include refined siting analyses to support
21 the selection of a preferred system route and further evaluation of the selected preferred system
22 route. These activities are discussed below.

1 **a. System Evaluation of Operational Needs**

2 As the Commission acknowledged in the Phase 1 Decision, “clean renewable hydrogen
3 has the potential to decarbonize the state’s and the Los Angeles Basin’s energy use,” including
4 electric generation.³ As described in the Testimonies of Ms. Brown and Josh Schellenberg, the
5 demand for electricity in California is expected to increase significantly in the next two decades,
6 resulting in a need for clean firm power, such as clean renewable hydrogen, to maintain energy
7 system reliability and resiliency while supporting the State’s decarbonization goals.⁴ Similarly,
8 the transportation sector will require a transformational transition to Zero Emission Vehicles
9 (ZEV) for passenger cars and trucks by 2035 and for medium and heavy-duty vehicles by 2045,⁵
10 which could utilize hydrogen that could be delivered by Angeles Link. Angeles Link could help
11 support both these end uses. Accordingly, in designing Angeles Link, SoCalGas plans to
12 conduct a system evaluation that considers the needs and use patterns of potential customers,
13 which will inform pipeline engineering and support designing a clean renewable hydrogen
14 pipeline system.

15 The Phase 2 system evaluation would utilize updated production and end-use information
16 (discussed below), location-specific details, and specific operability constraints to inform the
17 preferred system route identification process and compressor station siting and selection
18 considerations, in conjunction with the pre-FEED activities described by Mr. Walker. Transient
19 hydraulic modeling would be conducted to evaluate pipeline system operations, design, and
20 capabilities under a variety of scenarios. SoCalGas would include an evaluation of scalability,

³ Phase 1 Decision at 61-62 (FOF 1-2).

⁴ See Testimony of Josh Schellenberg at Section I.

⁵ California Air Resource Board (CARB), *Governor Newsom’s Zero-Emission by 2035 Executive Order (N-79-20)* (January 19, 2021), available at: <https://ww2.arb.ca.gov/resources/fact-sheets/governor-newsoms-zero-emission-2035-executive-order-n-79-20>.

1 performance, and reliability, as well as system design, hydraulics, and storage characteristics
2 over time, building off of the feasibility-stage storage analysis in the Phase 1 Production
3 Planning and Assessment Study (Production Study) and Pipeline Sizing & Design Criteria Study
4 (Design Study).

5 The Phase 2 system evaluation will also identify information to optimize route, material,
6 and equipment selection, and inform design choices, including first-mile to receipt points and
7 last-mile delivery options for connecting hydrogen production sites with proposed pipeline
8 routes. SoCalGas would also conduct additional hydrogen pipeline and equipment material
9 evaluations and develop a preliminary framework for a future hydrogen integrity program,
10 building off of the analysis in the Design Study. This more detailed information would be used
11 to inform Phase 2 pipeline design activities.

12 **b. Pipeline and Compressor Station Siting Considerations**

13 As described in the Testimony of Neil Navin, the Phase 1 Preliminary Routing &
14 Configuration Analysis and the Design Study resulted in identifying four potential directional
15 routes for Angeles Link, and one route variation that was added based on stakeholder feedback.
16 In Phase 2, SoCalGas intends to further evaluate potential routes, route variations, and
17 compressor station locations as part of a comprehensive evaluation that considers both
18 qualitative and quantitative criteria (including social, environmental, construction, and
19 engineering factors) to assess and compare multiple options for pipeline routing and compressor
20 station siting, ultimately narrowing down to a single preferred system route. This approach
21 would allow for scenarios with different priorities to be compared to identify an operationally
22 efficient preferred system route.

1 **2. Safety, Risk, and Workforce Activities**

2 Safety will continue to be a focus in all Phase 2 activities, including in the development
3 of safety plans and standards and workforce, training, and risk management plans.

4 **a. Safety Plans, Standards, and Risk Management**

5 Phase 2 activities will include development of an Angeles Link Enterprise Safety Plan
6 (ALESP) building upon the Phase 1 Evaluation of Applicable Safety Requirements (Safety
7 Evaluation), which incorporates feedback from the Hydrogen Safety Panel.⁶ In Phase 2,
8 SoCalGas will further develop a framework for managing hydrogen safety holistically through
9 the integration of various activities, including risk and asset management, formal processes and
10 procedures, systematic decision making, monitoring of program effectiveness, safety culture,
11 audits, and increased communications.

12 This holistic plan will address the application of hydrogen safety regulations (including,
13 as applicable, requirements from the Occupational Safety and Health Administration (OSHA),
14 the Pipeline and Hazardous Materials Safety Administration (PHMSA), and this Commission)
15 and industry best practices to the Angeles Link system. SoCalGas anticipates that it will manage
16 and advance safety for Angeles Link consistent with SoCalGas’s comprehensive set of safety
17 plans, programs, and procedures that address applicable infrastructure or activity areas.

18 Based on the feedback received in Phase 1, SoCalGas would continue to collaborate with
19 the Hydrogen Safety Panel⁷ and would seek their review of the ALESP. The ALESP will

⁶ The Hydrogen Safety Panel was established to address the safe operation, handling, and use of hydrogen and hydrogen systems. The Hydrogen Safety Panel is composed of a multidisciplinary team of experts, including engineers, code officials, safety professionals, equipment providers, and testing and certification experts, bringing extensive experience from various sectors, contributing to the safe implementation and use of hydrogen technologies. For more information *see*, Hydrogen Tools, *Hydrogen Safety Panel*, available at: <https://h2tools.org/hsp>.

⁷ If the Hydrogen Safety Panel were not available at the time required to conduct Phase 2 activities, SoCalGas would seek the expertise of another similar third party.

1 incorporate technical safety deliverables as part of the pre-FEED and FEED activities described
2 by Mr. Walker.

3 In accordance with PHMSA regulatory requirements and industry-standard codes
4 applicable to hydrogen,⁸ SoCalGas will continue to develop and implement a strategy to
5 establish a library of hydrogen-specific gas standards, design specifications, and protocols,
6 utilizing SoCalGas’s expertise and adapting existing natural gas pipeline standards,
7 specifications, and protocols as appropriate for clean renewable hydrogen.⁹ A detailed
8 governance framework will be developed to support maintenance of these standards over time,
9 also building off of existing SoCalGas governance frameworks, as applicable. The new
10 hydrogen-specific proposed standards and specifications may be leveraged in other activities,
11 such as preparing for construction operations and training requirements necessary for workforce
12 development (further discussed below).

13 SoCalGas will also develop a Risk Management Plan (RMP) and Risk Register at both
14 the project and enterprise level. The RMP will analyze potential risks including, but not limited
15 to, considerations for technical, construction-related, permitting, infrastructure, financial,
16 organizational, and market-related risks, as well as associated impacts and proposed mitigations.
17 As appropriate, risk mitigations will be incorporated into other Phase 2 workstreams.

18 **b. Workforce Planning and Training**

19 As described by Mr. Navin, a Workforce Planning and Training Evaluation (Workforce
20 Evaluation) was completed in Phase 1. In Phase 2, SoCalGas will continue to advance a strategy

⁸ United States Departments of Transportation and Homeland Security, *Title 49 Code of Federal Regulations (CFR) Part 192*, available at: <https://www.ecfr.gov/current/title-49/subtitle-B/chapter-I/subchapter-D/part-192>.

⁹ This activity would build off of the feasibility-level work conducted in the Phase 1 Evaluation of Applicable Safety Requirements.

1 for workforce training and development for Angeles Link. Phase 2 activities will include the
2 creation of engineering design specifications, including new and updated standards, material
3 specifications, engineering designs, and operational procedures needed to transport hydrogen via
4 the Angeles Link system, which will be integrated into workforce development and risk
5 management plans.

6 Phase 2 refinements to the workforce evaluation may include:

- 7 • Updating the employment impact numbers identified in the Phase 1 Workforce
8 Evaluation with more precise construction-related direct and indirect job generation
9 once a preferred route is identified.
- 10 • Preparing a detailed workforce development plan to support the transition to a new
11 hydrogen system, including assessing and enhancing the existing skills of the current
12 workforce prepared to install, operate, and maintain clean renewable hydrogen assets
13 consistent with safe operating procedures and hydrogen-specific gas standards; and
14 developing a workforce training plan for the operation of a new hydrogen pipeline
15 system, including training processes, environmental and safety compliance, industry
16 certifications, operator qualifications, operational structure, staffing plans, job
17 classifications, and an initial operations plan. This workforce training plan would
18 include adapting the existing natural gas training curriculum and/or creating a new
19 hydrogen-specific workforce training curriculum, as appropriate.

20 **3. Technology**

21 In the development and design of infrastructure for delivery of hydrogen, potential
22 technology applications and frameworks will be explored to support a new clean renewable
23 hydrogen pipeline transport system. Integrating advanced technologies and intentional

1 frameworks can enhance operational efficiency, mitigate risks, support compliance with industry
2 standards and regulations, and promote system reliability.¹⁰

3 During Phase 2, SoCalGas will assess infrastructure technology needs, governance and
4 implementation, and field technologies for Angeles Link. Infrastructure technology needs would
5 include an assessment of integrating data management information systems within the existing
6 SoCalGas Operational Technology (OT) infrastructure, and consideration of field technologies
7 specific to hydrogen asset management from a requirement and integration standpoint, including
8 operations and maintenance, hydrogen gas scheduling, monitoring, and safety. SoCalGas
9 employs a skilled workforce of transmission planning engineers that perform technical analyses
10 for Gas Control & System Planning and would provide expertise to support refinement of the
11 Angeles Link system design.

12 Developing the framework for integrating data management and information systems
13 within SoCalGas’s existing infrastructure will support the future Angeles Link system by
14 facilitating data flow and decision-making across various operational platforms, with a focus on
15 data infrastructure for collection, storage, and analysis of data with enterprise-wide accessibility
16 and integration.

17 SoCalGas will pursue development of a Technology Readiness Assessment (TRA),¹¹
18 inclusive of a Technology Readiness Level Analysis. The TRA would evaluate the critical

¹⁰ See R.24-09-012, Order Instituting Rulemaking To Establish Policies, Processes, And Rules To Ensure Safe And Reliable Gas Systems In California And Ong-Term Gas System Planning (September 26, 2024), *available at*: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M542/K029/542029029.PDF>.

¹¹ A Technology Readiness Assessment (TRA) is a systematic evaluation used to determine the maturity of a particular technology and its readiness for integration into a larger system or project. The main goal is to assess whether a technology is mature enough to be utilized, meeting the necessary requirements and capabilities for system integration.

1 technologies reflected in the Angeles Link design and their maturity, suitability for hydrogen
2 infrastructure, and ability to perform (i.e., technology readiness). The TRA will assess testing,
3 demonstration, supply, constraints, and evaluation of the technology's current readiness level, at-
4 risk technologies, and key technologies and their application to date. The TRA supports
5 developing a reliable and effective system design and equipment selection to mitigate potential
6 risks. SoCalGas will also evaluate field and design technology specific to the operation and
7 maintenance of hydrogen pipeline and compression systems. Identifying and evaluating specific
8 technology supports the TRA and will contribute to the future integrity planning identified
9 above.

10 **4. Affordability Considerations and Economic Analysis**

11 The Phase 1 Framework for Affordability Considerations (Affordability Framework)
12 describes feedback provided by PAG and CBOSG members about the affordability of Angeles
13 Link. The Affordability Framework notes the CPUC's continued evolving affordability
14 considerations¹² for the clean energy transition and describes how SoCalGas will continue to
15 monitor these developments as part of Phase 2 (e.g., to inform the selection of a preferred route
16 and advancement of engineering design and project cost estimates) and beyond to inform
17 Angeles Link development.

18 As described in the Affordability Framework, SoCalGas will also assess potential cost
19 allocation and rate design approaches for Angeles Link in the future, considering Commission
20 requirements and proceedings that may impact cost allocation and rate design. To support
21 development of a more refined estimated revenue requirement for Angeles Link, during Phase 2,
22 SoCalGas would develop a more refined project description upon selecting a preferred route and

¹² See Phase 1 Framework for Affordability Considerations.

1 completing the FEED for Angeles Link. SoCalGas would also identify the potential assets'
2 anticipated operating live(s) and variables such as material selection, end-user requirements, and
3 expected depreciation methodology. To develop recommended allocation of costs among
4 customer classes (e.g., core and non-core customers, etc.), SoCalGas plans to build upon the
5 information developed during Phase 1 (e.g., demand, production, and end users); consider new
6 information pertaining to development of the clean renewable hydrogen marketplace as it relates
7 to infrastructure needs, throughput, and system operational requirements; and consider benefits
8 resulting from Angeles Link. This assessment will help further refine Phase 1's assessment of
9 current and future customers and those who are likely to benefit, directly and/or indirectly, from
10 Angeles Link. As laid out in the Affordability Framework, following input from relevant
11 stakeholders and consistent with CPUC and State policy and regulation, and with consideration
12 of available non-ratepayer funding as well as ratepayer assistance programs and incentives, once
13 a revenue requirement and proposed cost allocation are determined, SoCalGas would propose a
14 rate design in a future proceeding. An Economic Analysis would also be performed integrating
15 updated hydrogen market data and information about the selected preferred route to estimate the
16 expected levelized cost of hydrogen delivered by Angeles Link. The Economic Analysis would
17 build upon the results of the feasibility-level analyses conducted in Phase 1 and would consider
18 available information where the proposed technologies, systems, and infrastructure in like
19 environments have been successfully used, as well as incorporate information made available
20 through ARCHES, ARCHES members, and other industry participants. The Economic Analysis
21 would be refined as more study results, performance data, and cost estimates become available
22 and may leverage proprietary and published data, DOE tools, estimates or quotes from industry
23 suppliers, or previous operational experience, as needed. This analysis would also aim to define

1 expected values of key parameters relevant to future Angeles Link operations, including
2 expected expenditures, tax credits, operating costs, and useful life of the assets.

3 **B. Hydrogen System Supply and End Uses**

4 In Phase 1, SoCalGas conducted a feasibility-level Demand Study which examined
5 potential hydrogen demand across the mobility, power generation, and industrial sectors in
6 SoCalGas's service territory, as described by Mr. Navin.¹³ Phase 2 activities include further
7 developing information on hydrogen demand and third-party hydrogen production planning in
8 order to support identifying and designing a preferred system route. These activities will help
9 SoCalGas assess with more detail the location and quantities of anticipated clean renewable
10 hydrogen production and develop more granular information on potential end users of Angeles
11 Link and their associated demand and usage needs. This will also help SoCalGas identify the
12 necessary system throughput and hydraulics to connect producers and end users and will inform
13 the Angeles Link system design. The proposed activities are described below.

14 **1. In-Depth Demand Evaluation**

15 In Phase 2, to inform FEED activities, SoCalGas proposes to build on the Phase 1
16 Demand Study and perform a more in-depth analysis to identify operational characteristics and
17 geographical locations of potential end users to help inform the preferred route with more
18 precision and defined throughput. For example, SoCalGas would incorporate hydrogen pricing
19 into the demand curve, assess demand associated with potential market subsectors, perform
20 refined demand projections for specific industries and sectors, evaluate third party connection
21 (first/last mile delivery) considerations, and produce a more refined demand forecast based on
22 current market information. SoCalGas will also incorporate updated information provided by

¹³ Refer to the Testimony of Neil Navin, which describes the findings of the Demand Study.

1 ARCHES, ARCHES members, and other market participants on end users and demand as more
2 information is made available.

3 The analysis will include economic modeling of demand elasticity to understand the
4 impact to demand volumes due to future changes in the cost of hydrogen and the cost of current
5 fuels (due to carbon pricing programs).

6 More refined geographic demand analysis with a focus on the mobility, transportation,
7 agricultural, power generation, and other applicable sectors will allow SoCalGas to better
8 understand how demand will be distributed across SoCalGas's service territory, including end-
9 use locations and operating requirements, demand profiles, development plans, etc. Specifically,
10 in Phase 2, SoCalGas intends to incorporate the operational characteristics of specific industries,
11 such as the power generation sector.

12 **2. Production Planning Activities**

13 SoCalGas intends to build on Phase 1 findings in the Production Study described by
14 Mr. Navin by further analyzing hydrogen production issues relevant to the design of Angeles
15 Link. For example, SoCalGas would go beyond the Phase 1 feasibility-level analysis to identify
16 production supply locations in Central and Southern California, which could impact the selection
17 of a preferred route and system throughput and hydraulics. SoCalGas will further assess clean
18 renewable hydrogen production technologies, particularly in terms of their development and
19 ability to meet gas quality expectations for pipeline integration and delivery for interconnection
20 to the Angeles Link system. Relevant information for evaluation would include locations,
21 production profiles, development plans, etc.

22 **C. Regulatory and Project Management**

23 SoCalGas will continue to manage compliance with applicable Commission directives
24 and reporting requirements during Phase 2.

1 SoCalGas will oversee and coordinate efforts to comply with Commission directives and
2 requirements applicable to Phase 2 and requirements imposed by other regulatory bodies. These
3 activities are expected to include reporting to the Commission, coordinating and collaborating
4 with hydrogen industry subject matter experts to prepare regulatory deliverables, including
5 managing compliance with regulatory directives and requirements, and coordinating with
6 ARCHES and applicable market participants to harmonize the technical design, construction,
7 and operational requirements of Angeles Link with that of the California Hydrogen Hub.

8 SoCalGas will establish project management and reporting standards applicable to
9 Angeles Link activities. SoCalGas will provide oversight at a programmatic level by developing
10 and implementing controls including scope management, master program schedule tracking,
11 program-wide documentation management, and financial reporting.

12 SoCalGas will establish overarching governance and management strategies to enhance
13 oversight, transparency and accountability for Angeles Link. During Phase 2, SoCalGas will
14 develop guidelines, templates, training tools, and standards by incorporating best practices and
15 lessons learned. These activities will help to identify process improvements to support
16 consistency.

17 SoCalGas will also monitor the Angeles Link master schedule as well as coordinate with
18 ARCHES as needed to identify and align on common milestones for activities where SoCalGas
19 is a contributor to, or impacted by, ARCHES' and/or DOE's scheduled activities for a cohesive
20 and integrated project plan. SoCalGas's governance processes are designed to standardize
21 project execution and allow assessment of whether activities are on target to achieve established
22 goals and regulatory requirements.

1 **D. Stakeholder Engagement**

2 **1. Expanded Stakeholder Engagement**

3 In Phase 2, SoCalGas will build upon its Phase 1 stakeholder engagement activities,
4 expanding them to meet with and solicit input from a broader range of stakeholders, including
5 the communities, their representatives, and tribal governments along potential routes. SoCalGas
6 proposes to continue convening with stakeholders, including the PAG, to meet at major project
7 milestones, but no less than quarterly. Additionally, SoCalGas plans to expand PAG
8 membership to include organizations from outside the Los Angeles Basin that represent
9 communities and stakeholders near the potential directional routes to be evaluated in Phase 2.
10 SoCalGas plans to invite Phase 1 PAG and CBOSG members to participate in the Phase 2 PAG
11 and public community meetings. The PAG would be invited to provide input on route selection,
12 community engagement, and other Phase 2 activities of interest to stakeholders (e.g., safety and
13 workforce training and development strategy). Similar to Phase 1 and subject to Commission
14 approval, SoCalGas plans to compensate community-based organizations for their participation
15 in the Phase 2 stakeholder engagement process.

16 As requested by PAG and CBOSG members in Phase 1, SoCalGas plans to provide
17 communities along potential directional routes and their representatives opportunities to provide
18 feedback and gather insights on route selection, community benefits, and other programmatic
19 activities. SoCalGas will utilize the Phase 1 Environmental Social Justice Community
20 Engagement Plan (ESJ Plan), developed at the request of the CBOSG and with their feedback, to
21 inform its community engagement efforts.¹⁴ Now that four potential directional routes and one

¹⁴ In response to stakeholder feedback, SoCalGas developed an Environmental Justice Community Engagement Plan (ESJ Plan) in Phase 1 to inform community engagement during Phase 2. The ESJ Plan will focus on gathering community input to address concerns and educate communities on hydrogen related topics of most interest to community members.

1 route variation have been identified, SoCalGas plans to hold public meetings to solicit input from
2 potentially impacted communities where field work will be conducted near potential routes.
3 Additionally, public officials along the preferred routes may inquire about Angeles Link and
4 want to provide input on Phase 2 activities. Therefore, stakeholder engagement activities in
5 Phase 2 will encompass soliciting feedback from local and regional governments on proposed
6 routes. This is consistent with SoCalGas’s current practices for large infrastructure projects and
7 is responsive to stakeholder feedback received in Phase 1 to engage local representatives in the
8 stakeholder engagement process.¹⁵

9 The stakeholder engagement activities that SoCalGas proposes for Phase 2 require
10 incremental internal resources and external consultants, including to convene and facilitate larger
11 stakeholder and community meetings, develop meeting materials in coordination with subject
12 matter experts, and facilitate more stakeholder outreach.

13 2. Environmental and Social Justice Community Engagement Plan 14 Implementation

15 The ESJ Plan developed in Phase 1 provides a framework for engaging ESJ communities
16 during Phase 2 and describes how SoCalGas’s engagement strategies align with the goals of the
17 Commission’s Environmental and Social Justice Action Plan (ESJ Action Plan) and other State
18 and federal ESJ goals. The ESJ Plan includes potential engagement mechanisms SoCalGas can
19 leverage to engage ESJ communities in Phase 2, including collaboration with grassroots
20 organizations along the routes, leveraging the *promotoras de salud*¹⁶ model to help educate the

¹⁵ Engaging elected officials was a recommendation from CBOSG members during a CBOSG meeting held on September 2023. See Section III of SoCalGas’s Angeles Link Phase 1 Third Quarter Quarterly Report for a summary of the breakout session activity, available at: https://www.socalgas.com/sites/default/files/2024-01/ALP1_QuarterlyReport_Q3-2023_FINAL.pdf

¹⁶ “Promotoras” is a broad umbrella category for community health workers that provide health education and outreach services within their own communities. They deliver culturally tailored

1 community at large, direct community engagement and presence in community spaces
2 frequented by community members (e.g., grocery stores, places of worship, community events),
3 and educate through local media (e.g., radio and newsprint).¹⁷

4 The ESJ Plan also includes an ESJ community screening assessment (ESJ Screening),
5 which provides baseline disadvantaged community (DAC) designation information and other
6 demographic information for the potential directional routes identified in Phase 1. SoCalGas
7 intends to leverage this information in Phase 2 to facilitate its outreach strategies in DAC and
8 ESJ communities.

9 **3. Community Benefits**

10 ARCHES submitted a Community Benefits Plan with its application to DOE for federal
11 funding for the California Hydrogen Hub, which outlines ARCHES's strategy to ensure federal
12 investments advance community and labor engagement, workforce investment, diversity, equity,
13 inclusion, accessibility, and contributions to the Federal Justice40 Initiative.¹⁸ Although
14 SoCalGas is not bound by these requirements, as described by Ms. Brown, SoCalGas remains
15 committed to extending its best efforts to support these goals. Moreover, as also identified by
16 Ms. Brown, SoCalGas supports implementing community benefits and, if SoCalGas files a
17 future application for a Certificate of Public Convenience and Necessity for Angeles Link,
18 SoCalGas would also seek Commission authorization to allocate funds for community benefits to

health education and disseminate information about health and social resources to Hispanics and their families. They serve as bridges between their communities and the formal healthcare system. See Center for Biotechnology Information, *Promotoras de Salud: Roles, Responsibilities, and Contributions in a Multi-Site Community-Based Randomized Controlled Trial*, (June 1, 2013), available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3970723/>.

¹⁷ See ESJ Plan at 9-11 for further details regarding engagement mechanisms.

¹⁸ ARCHES H2, *ARCHES Community Benefits Plan* (November 2023), available at: https://archesh2.org/wp-content/uploads/2023/11/ARCHES_CB_PROPOSAL_for-release.pdf.

1 be identified at that time. In Phase 2, SoCalGas will work with the PAG and communities along
2 the preferred route for Angeles Link to identify potential investments for community benefits to
3 be proposed in a future Commission proceeding.

4 **IV. COST FORECASTS & COST CONTROLS**

5 Cost forecasts for the Phase 2 activities described above were estimated by using a zero-
6 based forecast methodology for company labor (Labor) estimates and industry best practice for
7 external resources (Non-Labor, or NL). The cost forecast for Phase 2 was developed with
8 reference to historical expenditures, activities from Phase 1, and similar projects, where
9 applicable. These estimated costs consist predominantly of Labor and external Non-Labor to
10 support continued analysis, evaluations and studies, stakeholder engagement activities, and other
11 activities to advance Angeles Link. Table 1 below shows the estimated costs, fully loaded.

12 **Table 1: Chapter 3 Phase 2 Cost Estimates (in millions)**

	2026	2027	2028	Total
Total Direct O&M Costs	\$15.7	\$15.7	\$7.8	\$39.2
Direct Labor	\$4.5	\$4.5	\$2.2	\$11.2
Direct Non-Labor	\$11.2	\$11.2	\$5.6	\$28.0
Total Fully Loaded O&M Costs	\$19.7	\$20.1	\$10.2	\$50.0

13 For Phase 2 activities, SoCalGas will implement and monitor proactive cost management
14 processes by utilizing various tools to standardize cost, schedule, and risk reporting. Project and
15 process controls allow for assessment of budget and schedule, which promote awareness of
16 current and forecasted activities with the goal of achieving cost objectives, providing early
17 identification of potential upward cost variances, and enabling mitigating actions to prevent
18 undesirable cost impacts. SoCalGas will monitor and track Angeles Link Phase 2 costs through
19 a periodic review and approval process.
20

1 | **V. CONCLUSION**

2 | This concludes my prepared direct testimony.

1 **VI. QUALIFICATIONS**

2 My name is Amy Kitson. I am employed by SoCalGas as the Director of Angeles Link -
3 Engineering & Technology for SoCalGas. My business address is 555 West Fifth Street, Los
4 Angeles, California 90013-1011. I graduated from Michigan State University in 2003 with a
5 Bachelor of Science degree in Mechanical Engineering and California State University
6 Northridge in 2009 with a Master of Science degree in Engineering Management. I joined
7 SoCalGas in 2005 as an engineer in the Gas Operations organization supporting the
8 Transmission Integrity Management Program. Since that time, I have held numerous positions
9 with increasing levels of responsibility including Project Manager, Technical Services Manager,
10 Storage Engineering Manager, Risk Assessment & Controls Manager, Director of Storage Risk
11 Management within Storage Operations, and Director of Integrity Management and Strategic
12 Planning. In my current position, my responsibilities include overseeing Angeles Link
13 Programmatic Activities. Prior to joining SoCalGas, I worked at Consumers Energy in
14 Michigan. There, I held several positions including Mechanical Engineer, Employee
15 Development Coordinator, and Engineering Team Leader.

16 I have previously testified before the Commission.