

Angeles Link Phase 1 Reasonableness Review Chapter 3 Workpapers: Demand Study

I. Introduction

This workpaper provides details on the prudent and reasonable activities taken to develop the Demand Study in compliance with Decision (D.) 22-12-055 (Phase 1 Decision),¹ including details on study costs and management and cost control measures. The total loaded cost associated with the Demand Study is \$3.2 million in operating and maintenance (O&M) expenditures for Phase 1 activities.²

II. Study Costs

A combination of internal and external resources were utilized to execute the Demand Study. Direct costs for these activities reflect labor costs (e.g., internal personnel) and non-labor costs (e.g., third-party contractors and miscellaneous costs associated with supporting Angeles Link Phase 1 activities).³ Indirect costs reflect costs for overhead loaders.⁴ The total loaded cost for the Demand study is \$3.2 million. See Table 1: Demand Study Total Costs below for additional cost details.

Table 1: Demand Study Total Costs (in millions)

Labor	Non-Labor	Overheads	Total Loaded Costs
\$0.4	\$2.4	\$0.4	\$3.2

¹ Phase 1 Decision Ordering Paragraphs (OP) 3(a), 3(c), 3(e), 3(h), 5(a), 5(c)-(e) (Phase 1 Decision at 73-75). The activities were scoped and conducted in compliance with the Phase 1 Decision in its entirety, which includes broader requirements than those required for cost recovery, including OP 6(a) and OP 6(c) (*id.* at 76). Phase 1 Decision OP 6 requirements to advance to Phase 2 are being addressed in A.24-12-011.

² Expenditures for these activities were incurred from January 2023 through December 2024, with some discrete trailing charges through 2025.

³ See Chapter 1 (Direct Testimony of Shirley Arazi and Amy Kitson) for a description of miscellaneous costs.

⁴ See Chapter 6 (Direct Testimony of Jenny Chhuor and Michael W. Foster) for a description of the overhead costs.

A. Labor Costs

Labor costs for the Demand Study total \$0.4 million and consist of support from SoCalGas personnel within the Angeles Link organization (e.g. project managers, directors and subject matter experts (SMEs) as well as personnel from other departments in areas such as general administration, regulatory and policy, and public affairs).⁵

The subject matter expertise within SoCalGas was utilized throughout the development of the Demand Study, including collaboration with personnel from Gas Demand, Customer Services, Supply Management and Strategy & Sustainability Planning. Leveraging this institutional knowledge allowed for alignment with company standards, industry codes, and technical requirements, while reducing costs and reliance on third-party contractors.

Labor costs reflect the following activities:

- Defined study objectives and developed scope of work.
- Developed and issued statements of work for third-party contractor evaluation.
- Managed contractor evaluation and selection in collaboration with the Supply Management organization.
- Oversaw contractor performance, including review of the study progress, activities, and invoices.
- Provided review, feedback, and comments on contractor deliverables.
- Synchronized the study workstreams and facilitated the integration of information across dependent studies
- Collaborated with SMEs throughout the development of the study.
- Reviewed, and approved contractor deliverables.
- Developed materials, including slide decks and handouts to support stakeholder engagement meetings.
- Reviewed and prepared responses to stakeholder feedback.
- Incorporated stakeholder feedback into the study as appropriate.

⁵ See Chapter 1 (Direct Testimony of Shirley Arazi and Amy Kitson) for additional labor costs details.

- Supported the preparation of quarterly reports.
- Development of Demand Study, including a technical appendix as part of the final study.

B. Non-Labor Costs

Non-labor costs for the Demand Study total \$2.4 million and consist of third-party contractor costs and miscellaneous expenses. Examples of non-labor cost activities include the following:

- Meetings/workshops to gather information based on the scope objectives, including evaluating study interdependencies.
- Assessment of the scope of work for the Demand Study.
- Development of technical approach and methodology to meet the study objectives, including key input assumptions.
- Research and analysis to identify and validate demand, major end uses, and representative end users within SoCalGas's service territory through 2045 in the Mobility, Power Generation, and Industrial sectors.
- Identification of end-users, including current natural gas customers and future customers.
- Consolidation of results into a study, including timeline, demand map, and a list of representative adopters and non-adopters.
- Supported integration of demand results into other Phase 1 Studies.⁶
- Review of milestones deliverables, quarterly reports, and stakeholder comments and responses, as appropriate.

Development of Demand Study, including a technical appendix as part of the final study. The following section provides details on the third-party contractor and contract amendments necessary to conduct the Demand Study.

⁶ This study was foundational to the Phase 1 studies as it provided inputs to the Cost Effectiveness Study, Alternatives Study, Production Study, Preliminary Routing/ Configuration Analysis (Routing Analysis), Greenhouse Gas (GHG) Emissions Evaluation (GHG Study), Nitrogen Oxide (NOx) and other Air Emissions Assessment (NOx Study), Hydrogen Leakage Assessment (Leakage Study), Pipeline Sizing & Design Criteria (Design Study), and Water Resources Evaluation (Water Evaluation).



SoCalGas awarded Accenture International Limited (Accenture) a fixed-fee contract for \$1,850,000 under an existing Master Service Agreement (MSA) with milestone-based schedule⁷ to develop the Demand Study in partnership with the Electrical Power Research Institute (EPRI) as a sub-contractor.

In August 2023, an amendment was executed to extend the term of the original contract through October 2023, revise the scope of services, and increase the contract amount of \$1,850,000 by \$210,000 for a total contract amount of \$2,060,000.

Additional funding was necessary to support stakeholder engagement, including addressing stakeholder feedback and preparing materials for additional stakeholder meetings, updating the demand model, providing more details in the Technical Appendix (e.g. descriptions, assumptions, data sources, calculations, and methodologies for evaluating hydrogen demand), and coordinating across multiple Phase 1 Studies. The total Accenture cost incurred for the Demand Study is \$2,037,696.

SoCalGas utilized study management and cost control measures to help manage the scope and costs. These measures included:

- Developing an effective third-party contractor selection process.
- Following a structured invoice and cost management process, including reviewing invoices against activities supporting the expected deliverables to confirm that costs accurately reflect work performed.
- Maintaining regular communication with the third-party contractors to oversee the scope and timeline of milestone deliverables, responding to technical inquiries as they emerged, and offering guidance on work expectations.
- Modifying the scope to better align study topics, technical analyses, and third-party contractor expertise and to address stakeholder feedback where appropriate.
- Assessing the need for modifications to the study scope.

⁷ The Demand Study defines “milestone-based schedule” as a series of targeted tangible deliverables.