



FILED

11/27/24

04:59 PM

C2411013

Exhibit File 4

Exhibits GG – MM

Complaint Exhibits Table of Contents

Exhibit File 1

Exhibit A.....	1
Exhibit B.....	5
Exhibit C.....	8
Exhibit D.....	11
Exhibit E.....	16
Exhibit F.....	20
Exhibit G.....	41
Exhibit H.....	46
Exhibit I.....	52
Exhibit J.....	59
Exhibit K.....	65
Exhibit L.....	91
Exhibit M.....	116
Exhibit N.....	142
Exhibit O.....	148
Exhibit P.....	198
Exhibit Q.....	215
Exhibit R.....	229
Exhibit S.....	216
Exhibit T.....	278
Exhibit U.....	282
Exhibit V.....	301
Exhibit W.....	303
Exhibit X.....	309
Exhibit Y.....	317
Exhibit Z.....	321
Exhibit AA.....	326
Exhibit BB.....	333
Exhibit CC.....	354

Exhibit File 2

Exhibit DD.....	376
Exhibit EE.....	682

Exhibit File 3

Exhibit FF.....	899
-----------------	-----

Exhibit File 4

Exhibit GG.....	1696
Exhibit HH.....	1702
Exhibit II.....	1709
Exhibit JJ.....	1718
Exhibit KK.....	1723
Exhibit LL.....	1731
Exhibit MM.....	1743

Exhibit GG

August 2, 2024

Southern California Gas Company
555 West Fifth Street,
Los Angeles, CA 90013



Submitted via email to ALP1_Study_PAG_Feedback@insigniaenv.com.

Feedback for Southern California Gas Company on Water Resources Evaluation Draft Report

Communities for a Better Environment (CBE) submits this letter of feedback to Southern California Gas Company (SoCalGas) on the Water Resource Evaluation Draft Report (Water Report) provided on July 5, 2024. This letter raises concerns regarding the scope of the water report and significant omissions that the final report must remedy. The following sections, addressed at length below, outline CBE's concerns across the five chapters of the Water Report:

- I. Water Source Feasibility Concerns
- II. Geographic Scope, Acquisition, and Treatment Feasibility Concerns
- III. Failure to Include Community Concerns in Feasibility Analysis
- IV. Inadequate Greenhouse Gas Emissions Analysis

Echoing the Equity Principles for Hydrogen,¹ CBE emphasizes the importance of environmental justice protections related to water use and treatment to mitigate the negative impacts of hydrogen projects on California's already stretched water supply. Foundational environmental justice protections include requirements that water sources are surplus and not diverted from sources which serve jurisdictions that are struggling or failing to meet clean drinking water needs, nor can the water source be potable water when drinking water needs are not met.

I. Water Source Feasibility Concerns

Water Report chapter one on availability identifies ten sources of water as feasible for hydrogen production in service of the Angeles Link Project based on a flawed set of criteria that fail to account for water treatment, and acquisition. While treatment and acquisition are separately addressed in Chapters two and three respectively, their assessment does not affect the Report's presumption of feasibility based on availability alone. For example, some sources, such as imported surface water have been fully allocated and are only accessible via exchange agreements. Whereas other sources such as dry weather flows, urban stormwater capture and reuse, and oil and gas industry water are ephemeral, inconsistent sources that exist dependent on

¹ CBE et al., Environmental Justice Position on Green Hydrogen in California, [Equity Principles for Hydrogen](#) (2023).

specific weather or market conditions. Finally, sources such as agricultural industry water, brine line flows, advanced water treatment concentrate, and oil and gas industry water will require significant, costly treatment to reach the level of purity required to be used in electrolysis. While these topics are addressed elsewhere in the report, they are not adequately expressed in terms of feasibility.

Exploring this further, CBE raises the following concerns regarding the feasibility of the most alarming water sources:

- **Imported surface water is already allocated.** CBE is concerned with the lack of analysis regarding the feasibility of acquiring land rights to acquire water rights as well as the feasibility of coming to exchange agreements on already fully allocated State Water Project, Colorado River, and Central Valley Project.
- **There are significant groundwater management concerns across Southern California.** While the Water Report assumes that over drafted groundwater was unavailable, it fails to provide sufficient analysis on the extent of water management impacts on groundwater availability. For example, the State Water Resources Control Board is holding hearings regarding major concerns with local groundwater management plans and critical overdraft in Kern County of the San Joaquin Valley, where a potential production site is to be located.²
- **Oil and Gas Industry Water is not a viable source of water.** As the Water Report itself states, the oil and gas industry is expected to decline in coming years. However, this fact is not adequately addressed in the feasibility consideration of oil and gas industry water for hydrogen production. A concerning result of this relationship would be hydrogen producers scrambling to find higher cost, less conflict vetted water sources when oil refineries go offline and are no longer able to fulfill hydrogen producers' contracts for water supply.

II. Geographic Scope, Acquisition, and Treatment Feasibility Concerns

All the Water Report's chapters use a wide geographic boundary inspired by SoCalGas's service territory covering almost the entirety of Southern California. This far-reaching scope completely fails to contextualize availability, acquisition, and treatment of water sources in the areas SoCalGas has identified as potential production sites, the San Joaquin Valley, Lancaster, and Blythe – all notably water strapped communities. While Chapter four titled "Challenges and Opportunities" identifies geographic location and distance to hydrogen production as key topics of assessment, these concerns are not addressed in terms of feasibility. Concerningly, Chapter 3 cost calculations even assume that water will be transported only 25 miles on average to treatment facilities. The Report thereby fails to provide any analysis realistically rooted in how identified water sources from this entire region will arrive and be treated in the San Joaquin Valley, Lancaster, and Blythe. These challenges are generically described and should be better defined in relation to the three identified production facilities and included in feasibility analyses.

² State Water Resources Control Board, [Kern County Subbasin Probationary Hearing Draft Staff Report](#) (2024).

Chapters two and three of the Water Report provide insight into the specific demands of the ALP. SoCalGas' "moderate" demand scenario, places ALP hydrogen demand at 1 million metric tons of hydrogen per year, or 1 billion kilograms requiring 11,000 acre-feet of water per year³ or 13,568,300,000 (13.57 billion) liters per year. In other words, the Report estimates a water consumption rate of 13.6 kg of water per kg of hydrogen. To purify this water, the report estimates an average cost of \$8,124 per million gallons or between \$436 million and \$1.3 billion (including facilities over 30 years). This average estimate, while useful, leaves significant margins if any assumptions prove underestimates. Studies show that electrolysis can consume between 9 (the stoichiometric water demand) and 30kg of water per kg of hydrogen. In addition, the Report's cost estimates exclude permitting, engineering, water transportation costs beyond 25 miles, and land costs; and explain that water purification cost is *heavily* dependent on purification demands leaving significant (billion-dollar) wiggle room in the presented estimates.

CBE is also concerned about unanswered questions around wastewater concentrate. The Report outlines that electrolysis will produce approximately half a billion of gallons of concentrated wastewater each year that must be either treated at new or existing wastewater treatment facilities or disposed of via evaporation ponds that would be collocated, or near treatment and electrolysis facilities. Long-term storage of wastewater concentrate in evaporation ponds will introduce an additional source of pollution risk into any communities, or groundwater supplies located near the water treatment facility. While treatment at capable treatment facilities is both cheaper than evaporation and could potentially reduce the risk of groundwater contamination, the report does not delve into this solution or fully discuss water treatment facility options.

III. Community Needs and Concerns Were not Included in Feasibility Analysis

The Water Report' stated feasibility criteria imply that the authors determined whether the use of a specific water source "would conflict with existing or anticipated water needs." However, the details of this analysis are not provided. Information regarding conflicts with existing and anticipated water needs is essential for drought stricken and water strapped communities to be fully informed of the impact of hydrogen production. The volumes of water, and scale of new-built water infrastructure contemplated by the report would significantly alter the landscape of each proposed production community. However, they are not consistently provided in the report. Without this information affected communities cannot provide informed consent or meaningful feedback. To remedy this, the Water Report should be amended to include a comprehensive chart that delineates, for each source, the amount of untreated water available, the estimated throughput of water from treatment, and resulting amount of treated water available for electrolysis.

IV. Inadequate Greenhouse Gas Emissions Analysis

³ A significant increase over current consumption in communities SoCalGas taps for possible production facilities. City of Blythe, General Plan Water Supply Assessment, at 3 August 31, 2006 <https://www.cityofblythe.ca.gov/DocumentCenter/View/279/Water-Supply-Assessment---General-Plan-20061011?bidId=>; City of Lancaster, General Plan 2030 Master Environmental Assessment, at 10.1-11, April 2009, <https://www.cityoflancasterca.org/home/showpublisheddocument/11352/635775792210230000>.

CBE stresses the importance of gathering high quality greenhouse gas (GHG) emissions data as soon as possible. The Report states that a “detailed, quantified analysis of potential GHG emissions associated with water conveyance and treatment is outside the scope of the WRE.”⁴ While we recognize Phase One feasibility studies are preliminary in nature, detailed analysis is essential to determining whether Angeles Link will indeed transport the “clean renewable hydrogen” SoCalGas has repeatedly promised to support throughout this process. Regarding third-party hydrogen production, this chapter of the Report notes:

SoCalGas anticipates clean renewable production projects would undergo a thorough environmental review under the California Environmental Quality Act (CEQA) and/or the National Environmental Policy Act (NEPA), as applicable . . . That environmental review would likely include an analysis of potential GHG emissions associated with development of those projects.⁵

SoCalGas must carefully examine all environmental impacts of the ALP. The ALP has made many broad claims as to air quality and general environmental impacts of the project. Without a clear study of these impacts, it will not be possible to determine critical opportunities for mitigation, assess project alternatives, or analyze how the ALP will really impact environmental justice communities. In the absence of such analysis, SoCalGas statements about green hydrogen or “clean renewable hydrogen” are, at best, wishful thinking.

Finally, in addition to examining GHG emissions, SoCalGas should also evaluate other criteria pollutants associated with water treatment and conveyance.

V. Conclusion

CBE appreciates the opportunity to provide feedback. However, SoCalGas has chosen not to pursue representation of the communities along the ALP route and in areas they view as potential hydrogen production zones in Phase 1. To the extent that the Water Report speaks to environmental impacts in those communities, the voices of community members not represented in the ALP process at this time cannot be ignored. This feasibility study alone illustrates the significant challenges that water availability adds to the development of such extensive hydrogen infrastructure in Southern California. When looked at in the context of the released and forthcoming feasibility studies, it is essential that the significant challenges to hydrogen, and strategies to address these challenges need to be elucidated so that the communities this infrastructure will most impact can position themselves to be a meaningful part of the conversation. Both the report itself, and the ALP Phase 1 process fall short in this regard.

CBE emphasizes, and echoes comments made in prior letters as well as in person at CBOSG and PAG meetings that the volume and speed at which report feedback is requested is vastly inappropriate for meaningful engagement and feedback on Phase 1 reports as is repeatedly emphasized in CPUC Decision 22-02-007.

⁴ Water Report at 5-1.

⁵ Id.

Respectfully Submitted.

Lauren Gallagher
Jay Parepally
Theo Caretto
Communities for a Better Environment

CC:
Emily Grant, SoCalGas
Chester Britt, Arellano Associates
Alma Marquez, Lee Andrews Group
Angeles Link PAG Service List

Exhibit HH

August 14, 2024

Southern California Gas Company
555 West Fifth Street
Los Angeles, CA 90013



Submitted via email to ALP1_Study_PAG_Feedback@insigniaenv.com

Feedback for Southern California Gas Company on the Nitrogen Oxides (NOx) and Other Air Emissions Assessment Draft Report

Communities for a Better Environment (CBE) submits this letter of feedback to Southern California Gas Company (SoCalGas) on the Nitrogen Oxides (NOx) and other Air Emissions Assessment Draft Report (the “Report” or “Study”) provided on July 17, 2024. This letter discusses serious errors that the final report must remedy. The Report fails to discuss NOx emissions or other air emissions focused on construction and operations of Angeles Link and the emissions impact on communities. Instead, it repeatedly emphasizes that there will be widespread market adoption of hydrogen in California and that the Angeles Link Project (ALP) will help satisfy this high demand for clean renewable hydrogen. It contends that third-party production will generate relatively little NOx and claims that end-uses of transported hydrogen will result in massive emissions reductions. California Public Utilities Commission (CPUC) Decision 22-12-055 emphasizes the importance of stakeholder engagement. Meaningful engagement is impeded where key information is either omitted or presented in a misleading manner. Particularly, the Report:

- Cherry Picks What is Within Scope and Out of Scope for the Study, Claims and Overemphasizes Emissions Reductions to Make ALP Seem Beneficial, and Minimizes or Excludes Facts that are Unfavorable to Perception of ALP
- Features Faulty, Unreasonable Assumptions about NOx Emissions, Especially Related to Biomass Gasification
- Draws a Major False Equivalency between Electrolysis and Biomass Gasification
- Contains Internal Contradictions about Third-Party Hydrogen Production Methods and Renewable Electricity
- Lacks Comparisons to NOx Emission Reductions from Battery Electric Vehicles Displacing Fossil Fuels in the Mobility Sector
- Relies on Proxy Emission Factors and Concedes Many Unknowns about 100% Hydrogen, Thereby Undermining the Supposed Feasibility of ALP

I. The Report Cherry Picks What is Within Scope and Out of Scope for the Study, Claims and Overemphasizes Emissions Reductions to Make ALP Seem Beneficial, and Minimizes or Excludes Facts that are Unfavorable to Perception of ALP

The Report selectively includes favorable aspects of Angeles Link and the lifecycle of hydrogen as being within the scope of a Phase 1 feasibility study and excludes the unfavorable aspects as being out of scope. Critically, the Report does not include air pollution emissions from hydrogen combustion in the commercial sector. The Study also buries this caveat deep in the report. For example, we are not told until the section containing SoCalGas's responses to stakeholder comments more than two-thirds of the way into the report that "[t]he Study does not evaluate hydrogen combustion for commercial...end users."¹ The major problem here is that although SoCalGas takes credit for NOx and other emissions reductions from third-party end users,² SoCalGas distances itself from environmentally harmful emissions added to the atmosphere by end users, such as those associated with hydrogen combustion.

The Study excludes more than the hydrogen combustion of commercial end users. It also chooses not to "evaluate the NOx associated with water conveyance or the transportation of other materials such as biomass to the production site or biomass feed preparation as those details are beyond the scope of this feasibility study."³ The Report's omission of biomass transportation emissions is particularly troubling because the Report repeatedly claims that the biomass gasification scenario of third-party hydrogen production involves "zero NOx."⁴ The Report explains that since biomass gasification "does not use combustion, there is no potential for NOx emissions associated with biomass gasification."⁵ As explained in the next section of this letter, this is a faulty and unreasonable assumption.

II. The Report Features Faulty, Unreasonable Assumptions about NOx Emissions, Especially Related to Biomass Gasification

The Report/Study applies assumptions skewed in favor of the Angeles Link project when presented with unfavorable data regarding NOx emissions. For example, in relation to biomass gasification, the Report notes one study that found that "there is potential for nitrogen contamination in the outlet of the biomass gasification system if fuel nitrogen is present."⁶ This means that if nitrogen is present in biomass feedstock, biomass gasification is not entirely clean, and the inference can be made that nitrogen in biomass feedstock can lead to NOx emissions. Yet

¹ Report at 12.4.

² Report at 2.1 ("The study...estimates NOx emission reductions (from end users of hydrogen in the mobility, power generation, and hard to electrify industrial sectors, to determine anticipated overall NOx reductions.>").

³ Report at 12.4.

⁴ Report at 3.8, 3.9, 7.4, 8.20, 12.4.

⁵ Report at 3.2.

⁶ Report at 3.9-3.10.

the Report contradictorily assumes “no nitrogen is contained in the biomass or any other fuel source for use in hydrogen production.”⁷ This is a nonsensical assumption because the Report itself acknowledges that biomass in the form of animal waste is “high in protein;”⁸ proteins are made up of amino acids, which in turn are made up of elements like nitrogen. SoCalGas does not explain the unique set of conditions in which the biomass feedstock used to produce hydrogen could somehow entirely lack nitrogen; instead SoCalGas improperly chooses to assume “there are no NOx emissions from biomass gasification.”⁹

Another unreasonable assumption the Report makes about biomass gasification deals with the moisture content of biomass feedstock. The Report notes that biomass gasification “requires dry biomass” and admits the possibility that biomass at a gasification facility site might contain moisture “that would require drying on-site.”¹⁰ Therefore, it can be inferred that industrial processes to dry out biomass would generate various types of air emissions, potentially even NOx emissions. Purportedly, “[d]ue to the level of uncertainty around whether on-site drying would be required for each specific biomass gasification facility,” the Report makes another biased assumption that “biomass would be procured ready to utilize and would not require moisture removal on-site.”¹¹ Uncertainty should tip the scales in favor of assuming the potential for *more* air emissions, not reduced emissions or no emissions. But likely because the added air emissions of drying out biomass would contradict SoCalGas’s depiction of biomass gasification as a “zero NOx” production method of hydrogen, the study elects the dry biomass assumption, despite the unreasonableness of that assumption.

A recent report on green hydrogen proposals in California¹² further demonstrates that biomass gasification involves several polluting steps that the Report either ignores or makes faulty assumptions about. As noted above, SoCalGas decides in the Report that biomass transportation to hydrogen production sites is outside the scope of this study.¹³ Yet transportation emissions, including NOx emissions, can only be plausibly excluded if the biomass gasification facilities are “located only where the appropriate biomass feedstocks are abundant[.]”¹⁴ In contrast to SoCalGas’s chosen assumption that biomass transportation is beyond the scope of this study, it is far more likely that at least some transportation will be required to any third-party production sites. This transportation “will result in increased pollution along common trucking corridors and potentially in the communities surrounding the gasification plants unless biomass

⁷ Report at 3.10.

⁸ Report at 3.9.

⁹ Report at 3.10.

¹⁰ Report at 3.10.

¹¹ Report at 3.10.

¹² PSE Healthy Energy, Green Hydrogen Proposals Across California: An Assessment of opportunities and challenges of using hydrogen to meet state climate goals, (May 21, 2024), <https://www.psehealthyenergy.org/wp-content/uploads/2024/05/Green-Hydrogen-Proposals-Across-California.pdf>.

¹³ Report at 12.4.

¹⁴ Green Hydrogen Proposals Across California at 60.

feedstocks are transported using zero-emission vehicles.”¹⁵ SoCalGas’s flawed and misleading assumptions about zero NOx for biomass gasification must be corrected in the final version of the Report.

III. The Report Draws a Major False Equivalency between Electrolysis and Biomass Gasification

The Report repeatedly draws a false equivalency between electrolysis and biomass gasification by claiming there are zero NOx emissions when producing hydrogen by 100% electrolysis or biomass gasification.¹⁶ Hydrogen production from electrolysis is only truly green if the three pillars of incrementality, temporality, and deliverability are met.¹⁷ If electrolysis relies on combustion of gas for power generation, then NOx emissions result. Further, research indicates that: “Dust, soot, tar, and particulate matter are all components of the gas created during [biomass] gasification, and the exhaust gas contains carbon monoxide, harmful organic compounds such as benzene, NOx, and particulate matter.”¹⁸ Clearly then, biomass gasification involves NOx emissions and other harmful air pollutants like particulate matter. In contrast, green electrolysis using renewable, non-combustion resources does not result in such NOx emissions. SoCalGas’s false equivalency about electrolysis and biomass gasification is compounded by the fact that electrolytic hydrogen is generally significantly more energy efficient than biomass gasification.¹⁹ Therefore, biomass gasification categorically cannot be classified as having zero NOx emissions and should not be lumped together with electrolysis powered by additional renewable energy from wind and solar.

IV. The Report Contains Internal Contradictions about Third-Party Hydrogen Production Methods and Renewable Electricity

The Report also describes some assumptions that contain internal contradictions and inaccuracies. Specifically, the Report states: “The draft NOx study report assumes that production of hydrogen will use renewable electricity with zero NOx emissions regardless of production method – electrolysis, biomass gasification, or steam methane reforming, although electricity is only assumed to be used for electrolysis.” First, regarding zero NOx emissions, the rest of the Report admits that steam methane reformation (SMR) “has NOx emissions and those potential emissions were evaluated” or describes SMR fueled by renewable natural gas (RNG) feedstock so there is “the potential for NOx formation.”²⁰ So, the stated assumption in Chapter

¹⁵ Green Hydrogen Proposals Across California at 85.

¹⁶ Report at 3.9, 7.4, 7.5, 8.20, 8.21

¹⁷ Morgan Rote, Why a strong ‘3 pillar’ framework makes sense for pivotal hydrogen tax credit, Environmental Defense Fund (Feb. 8, 2024), <https://blogs.edf.org/energyexchange/2024/02/08/why-a-strong-3-pillar-framework-makes-sense-for-pivotal-hydrogen-tax-credit/>.

¹⁸ Green Hydrogen Proposals Across California at 85.

¹⁹ Green Hydrogen Proposals Across California at 31, 93.

²⁰ Report at 3.10.

12 is inaccurate with respect to the claim of zero NOx emissions related to steam methane reforming. Second, although CBE would like SoCalGas to commit to utilizing third-party hydrogen only produced by green electrolysis for Angeles Link, SoCalGas has not committed to that throughout the Phase 1 process, as it continues to call for hydrogen produced by biomass gasification and steam methane reformation. Therefore, the assumption about hydrogen production using “renewable electricity with zero NOx emissions regardless of production method” is not only contradictory to SoCalGas’s position but also unsubstantiated.²¹

V. The Report Lacks Comparisons to NOx Emission Reductions from Battery Electric Vehicles Displacing Fossil Fuels in the Mobility Sector

CBE is concerned that this study and the Demand Study underpinning it both fail to accurately address NOx emissions reductions associated with the displacement of fossil fuel powered vehicles by battery electric vehicles (BEVs) between 2030-2045. The Report states: “The Demand Study projected the anticipated fossil fuel displacement associated with FCEVs [fuel cell electric vehicles] only. The associated NOx reductions were estimated only for conversion to FCEVs; this study does not project emission reductions related to fossil fuel displacement that will be associated with BEVs.”²² For this NOx and other air emissions study to be credible, the final Report must include side-by-side comparisons of added NOx emission additions and reductions between hydrogen powered FCEVs and renewable electricity powered BEVs. Even if direct electrification and BEVs are discussed in the separate Project Options and Alternatives Draft Report, that is insufficient because SoCalGas released the Project Options and Alternatives report more than a week after this NOx report and it has a separate, later feedback deadline. It is unfair to put the burden on stakeholders already juggling multiple overlapping studies and feedback deadlines to dig for alternatives comparisons when commenting on this entirely pro-hydrogen NOx report.

VI. The Report Relies on Proxy Emission Factors and Concedes Many Unknowns about 100% Hydrogen, Thereby Undermining the Supposed Feasibility of ALP

With respect to NOx emissions factor, CBE is alarmed by the Report’s characterization of the many unknowns regarding constructing and operating a massive pipeline to transport 100% hydrogen. The Report notes the following about hydrogen combustion: “research completed for this study did not reveal any published hydrogen-specific combustion emission factors;” “direct measurements of NOx emissions from practical combustion systems using pure hydrogen are scarce at the present time;” “very little test data is available, as few types of combustion units can effectively operate on pure 100% fuel at this time.”²³ The Report even admits that it could

²¹ See CBE Feedback to Southern California Gas Company on Greenhouse Gas Emissions Evaluation Draft Report, at 2-3, Aug. 14, 2024.

²² Report at 7.7.

²³ Report at 3.5.

not utilize direct measurements of NOx emissions from combustion units “representative of hydrogen combustion technology to quantify NOx emissions within this study”²⁴ because such test data does not yet exist. Since published and reputable hydrogen emission factors are not yet available, the Report relies on proxy emission factors to quantify NOx emissions from hydrogen combustion.²⁵ Yet, without citing to any source about the validity of proxy emission factors for this type of emissions study, the Report confidently claims: “Proxy emissions factors are compatible with the Demand Study, were sufficient to estimate end-user emissions, available for combustion units, and applicable across the entire project geography.” Setting aside the overinflated hydrogen projections in the Demand Study, the numerous flaws in this Report we have discussed, as well as the many unknowns about hydrogen, indicate that this NOx emissions feasibility study cannot reasonably be relied upon as a fair evaluation of the air quality impacts of Angeles Link.

VII. Conclusion

Communities for a Better Environment appreciates the opportunity to provide feedback on the Report. Due to the Report’s omissions and misleading discussion outlined above, CBE strongly objects to the characterization of emissions represented in this report. Accurate emissions estimates must be provided for communities to engage in meaningful dialogue with SoCalGas regarding the ALP. CBE recommends SoCalGas rectify all issues raised in this letter before issuing a final NOx and Other Air Emissions report to provide serviceable data by which the ALP can be assessed.

Sincerely,

Jay Parepally
Communities for a Better Environment

CC:
Emily Grant, SoCalGas
Chester Britt, Arellano Associates
Alma Marquez, Lee Andrews Group
Angeles Link service list

²⁴ Report at 3.5.

²⁵ Report at 3.6.

Exhibit II

August 30, 2024

Southern California Gas Company
555 West Fifth Street,
Los Angeles, CA 90013

Submitted via email to ALP1_Study_PAG_Feedback@insigniaenv.com.

**Feedback for Southern California Gas Company on Environmental Social Justice (ESJ)
Draft Engagement Plan and ESJ Screening and Environmental and Social Justice
Screening**

Communities for a Better Environment (CBE) submits this letter of feedback to Southern California Gas Company (SoCalGas) on the “Environmental Social Justice Draft Engagement Plan and ESJ Screening” (Engagement Plan) and “Environmental and Social Justice Screening” (Screening) provided on July 19, 2024.

SoCalGas references the Equity Principles¹ and even includes them (and SoCalGas’ response letter as an attachment) but fails to meet the very clear baseline standards laid out in the principles. In fact, SoCalGas both ignores the Equity Principles core precepts and fails to outline their own path for aligning with the principles. SoCalGas states that “[e]ncouraging that community voices are heard and considered is crucial when it comes to establishing trust with environmental justice communities.”² Unfortunately, SoCalGas mischaracterizes the Equity Principles in the very same section. While the Equity Principles do encourage that community voices be heard and considered, community self-determination necessarily involves individuals explaining their community vision and how such vision can be realized. However, the environmental justice organizations who created the Equity Principles emphasize that full community protections and environmental justice measures should be a starting point for projects, not things communities must fight for in each project.³ The principles emphasize that

¹ Equity Principles for Hydrogen: Environmental Justice Position on Green Hydrogen in California, COMMUNITIES FOR A BETTER ENV’T (Oct. 10, 2023), <https://www.cbecal.org/wp-content/uploads/2024/03/Equity-Hydrogen-Initiative-Shared-Hydrogen-Position-1.pdf>.

² Engagement Plan at 6.

³ Equity principles at 2 “We insist that new projects protect communities first and do not perpetuate the injustices that polluting infrastructures impose on fence-line communities today.”

hydrogen should not be combusted for electric power, used in commercial buildings, or relied on for rail or drayage trucking because of these end-uses' impacts in environmental justice communities. Further, the Principles emphasize the importance of community consent to hydrogen delivery projects. Neither the Engagement Plan nor Screening document outline a plan for implementing community protections or environmental justice measures that align with the Principles. The Engagement Plan does not even acknowledge the core principle of community self-determination. Rather, the plan insists that the pipeline will travel through dozens of California's most polluted communities, and that these communities may be engaged with as the project forges ahead.⁴

***A. ENVIRONMENTAL SOCIAL JUSTICE (ESJ) COMMUNITY DRAFT
ENGAGEMENT PLAN AND ESJ SCREENING***

The draft engagement plan mischaracterizes the Equity Principles for Hydrogen, fails to implement the CPUC's ESJ Action Plan 2.0, and ignores key populations and environmental impacts. Rather, the document defers nearly all engagement to a later, theoretical phase.

I. Lack of Engagement Plan Development

The Equity Principles highlight that “[d]iscussions about building new green hydrogen infrastructure must involve the community and its members should be meaningfully engaged.” However, the Engagement Plan pays only nominal lip service to actual engagement because it fails to identify a means of dialogue, or the important topics of concern for discussion. Engagement is a core principle of environmental justice, but engagement alone does not make projects just. The goal of engagement with a project is not to be engaged, but to determine whether a dangerous or polluting project lands in environmental justice communities and what its unique impacts will be. Engagement should be thought of as a commitment to following through on a clear set of principles and practices and should represent the difference between mere words on paper and affirmative dialogue with stakeholders.

While it is important that community outreach and implementation is rooted in active dialogue with impacted stakeholders and community members, community engagement should receive the same level of research and development that other significant and essential aspects of project development receive. This means that engagement efforts should be appropriately defined, outlined, and supported with clear strategies for implementation. The Engagement plan does none of this; rather, in a few bulleted sentences it merely identifies engagement plan “strategies” which lack concrete methods of action. SoCalGas has leaned heavily on community partners to develop the bulk of this engagement plan, but it has not followed through in developing robustly researched strategies for meaningful engagement that clearly connect to the

⁴ The one attempt at routing the ALP through fewer environmental justice communities, “Route Variation 1” is not even analyzed in phase one environmental analysis.

many important study areas that the CPUC identified in Decision 22-12-055. Failing to understand these strategies adequately will inevitably lead to failures in implementation, as evidenced in the rest of this letter.

In light of the Hydrogen Equity Principles' inclusion in the Engagement Plan, CBE points SoCalGas to the following framework for engagement provided in the Hydrogen Equity Principles:

Any new potential hydrogen production project must include the formation of a local oversight committee that will be composed of local stakeholders including local environmental justice, public health, labor, and utility representatives to conduct multiple waves of education and engagement to vet the project with the community. The oversight committee will be responsible for coordinating a series of workshops/presentations that will educate the community on sources of energy, emissions projections, job opportunities, and community benefits and risks. Following this process will include the opportunity for the oversight committee consider local resident feedback to either approve, deny, or make modifications to the plan.⁵

II. No Implementation Strategy

The “Engagement strategies” section of the Engagement plan is misnamed. These small paragraphs are simply descriptions of engagement mechanisms, but they do not include any strategy for implementing these mechanisms in phase two. Notwithstanding the engagement strategies section, the Engagement Plan contains no plan or strategy for implementing community engagement, nor has SoCalGas completed sufficient community engagement thus far. Communities for a Better Environment first notified SoCalGas that it was critical to engage communities along the pipeline route over 18 months ago in April 2023.⁶ Prior to this, the California Environmental Justice Alliance and Sierra Club raised this serious issue to the California Public Utilities Commission in the Angeles Link proceeding. Despite this, the Engagement Plan makes clear that no actual engagement work will be conducted. Rather, such engagement is conditional pending approval of a second phase and millions more public dollars in spending.

The Engagement Plan describes a list of actions that SoCalGas intends to take in phase two of the Angeles Link project (ALP) process, improperly deferring and delaying time sensitive matters. With SoCalGas aiming to determine the ALP route in the next phase, should it be approved, it is critical that pipeline communities have the opportunity to understand and respond

⁵ Equity Principles at 5.

⁶ Feedback for Southern California Gas Company on Angeles Link Project March 15 and March 16 Public Engagement Meetings, April 14, 2023.

to this decision-making process. As the Equity Principles and CBE’s previous comments make clear, such an opportunity involves prior education and engagement with accurate information presented in an accessible manner. No such process has taken place, and even accurate information surrounding the ALP has been hard to come by.⁷ Proposed future engagement plans in a later, unconfirmed phase are no excuse for a failure to conduct timely engagement and planning. However, the engagement currently outlined for a future phase is incomplete. Even if the actions are taking place in phase two, then the plan should be developed in phase one. Although the Engagement Plan states that it will “serve as a guide for future engagement with ESJ Communities and DACs in Phase 2,” it does not provide concrete steps for conducting that engagement. Despite SoCalGas acknowledging that no one strategy is sufficient, there is no commentary or analysis of when and where each engagement strategy will be useful; how they will be implemented; or what information SoCalGas needs to gather to get fruitful results from these engagement strategies. The ramifications of these failures are deeply evident in the shortcomings of the Screening, explored below.

The Engagement Plan also does not address how the execution of phase one has been frustrating and dishonest, fostering mistrust between PAG and CBOSG members and SoCalGas. The Engagement Plan, Screening, and several prior draft reports have been marred by generalized misstatements with no attribution or source and blatantly ignore ALP’s impacts in environmental justice communities. Despite this, SoCalGas claim the “Phase 1 stakeholder engagement process has played a pivotal role in fostering trust, acquiring valuable insights, and establishing the foundation for a community-centric approach to tackling environmental and social justice concerns within the design framework for Angeles Link.”⁸ From the vantage point of CBE, this is not the case. It is evident from the state of the Engagement Plan that SoCalGas has much work to do to foster trust and embark on a process that fosters truly meaningful engagement.

B. ENVIRONMENTAL AND SOCIAL JUSTICE SCREENING

I. The Screening Provides Incomplete Data in an Opaque Manner and Without Analysis

The Screening draft is a puzzling document. Despite spanning a lengthy 147 pages, it neither assesses existing burdens or conditions nor analyzes environmental impacts of the ALP. Concerningly, it does not identify how close the ALP will be from homes or other sensitive sites. Nor does it identify whether infrastructure (compressor station, intake or offtake point, etc.) will be sited in each “study area.”

⁷ See for example, CBE’s comments on GHG emissions and water, highlighting that the reports ignore key environmental impacts and omit emissions data from analyses.

⁸ Engagement Plan at 2.

Furthermore, the Screening does not include any discussion of impacts at pipeline origination or termination points. The Screening draft does not identify key stakeholders or community organizations. The Screening draft also does not integrate the California Public Utilities Commission’s Environmental and Social Justice Action Plan 2.0. Nor does the report give environmental justice communities (including some “356 census tracts identified as CalEnvrioScreen or SEJST DAC designations”) any sense of what they might expect should the ALP be routed through their neighborhoods. What the Screening draft does is aggregate a small amount of demographic data from public sources and organize it into 13 regional categories. However, this in fact disaggregates the selected demographic from other meaningful and significant data provided in these public tools. Environmental justice communities across California experience impacts from polluting industry neighbors on a daily basis. For example, residents of Wilmington, Los Angeles experience refinery flares, truck traffic, oil spills, powerplant emissions, gas leaks, violent explosions, contaminated land, and more. Residents of Lamont in Kern face the impacts of factory farm pollution, warehouse truck traffic, and drinking water contamination, among other issues. Each of these pollution sources inflicts a unique impact on the community it infiltrates. The Screening report, however, does not clarify how or why areas were segmented, presenting bare numbers without context or analysis. The tools referenced in the Screening utilize census tract numbers for mapping purposes, but they also include the city and county and can be viewed in context of the greater map. Rather than providing a fuller image of ALPs route, the Screening strips the census tracts of their more identifiable markers, such as the city, retaining only census tract numbers for identification. Because census tract numbers are not widely used as an identifying tool, the Screening data cannot be helpful as a rooting point for organizing or community outreach. These failures and omissions must be remedied if the Screening is to be a useful tool for community engagement rather than a summary of basic demographic information.

II. Screening Fails to Provide an Adequate Basis for Implementation of Engagement Strategies

Environmental justice communities throughout California experience daily impacts from polluting industry neighbors. These various pollution sources inflict unique impacts on the communities they affect, and residents are harmed and cope with those harms in different ways. The impacts of the ALP are no different, and environmental justice communities subjected to the project will face new, unique risks unlike those which presently exist in their communities. Hydrogen gas is highly leak prone, highly combustible, invisible, and odorless. Hydrogen leak detection technology capable of safely monitoring the ALP does not yet exist. A broad range of hydrogen end-use technology is still in its infancy, and appropriate pollution controls or safety equipment are not widely available either. Hydrogen production can also produce air, water, and climate pollution. Unfortunately, none of these environmental justice community risks; hydrogen explosion risk; pollution from hydrogen production, leakage, end-use; and project construction

impacts are analyzed in the Environmental Justice Screening draft. Despite containing lengthy summaries of various demographic indicators, neither report actually defines why the indicators were selected or how they would be relevant to implementing engagement strategies or mitigating ALP impacts. Without an examination of the specific and novel concerns of a high-volume hydrogen pipeline or of any existing risk factors in the communities along the pipeline route, engagement cannot possibly provide clear, accurate information to stakeholders.

The Screening also does not include key language justice details for various communities, or tribal community demographics. Recognizing the language demographics of communities, a readily available statistic on CalEnviroScreen, is essential to community engagement. As highlighted in the Hydrogen Equity Principles, to “[c]enter community input, continue to elevate EJ voices, and ensure meaningful community participation is present for any hydrogen project[,]” project developers must provide “language access such as interpretation and translation services for non-English speakers, depending on the common languages spoken in the particular community.” The Screening utterly fails to prepare to meet language needs because it only flags the percentage of census tracts above the county average of limited English-speaking households for each ALP segment, with many segments higher than 60%, including up to 100%. But inexplicably, even with the knowledge of such high need for translation services, the Screening does not discuss the specific language needs for each community and population along the route, or how SoCalGas will approach meeting translation needs.⁹ In a similar failure, while the Screening maps denote tribal land in general, the Screening does not identify the particular Tribes whose lands will be impacted by the project, and there is no discussion of how SoCalGas will engage with Tribes in the Engagement Plan.

III. Impact and mitigation discussion is inadequate

The Screening does not discuss any ESJ Community impacts, but it merely acknowledges that the ALP will cause impacts and then mischaracterizes what those impacts may be. The “Mitigations Measures” section is over twice as long as the “Impact Discussion,” and contains more detail about project impacts (albeit still inexcusably incomplete) than the impacts discussion. The existing Water Resources Evaluation, GHG Emissions Evaluation, Nitrogen Oxide and Other Air Emissions Assessment, Plan for Applicable Safety Requirements, Preliminary Routing-Configuration Analysis, and other documents produced by SoCalGas, as well as CBE’s and other organizations’ feedback to those documents, indicate a long list of adverse ALP impacts.¹⁰ Almost none of these impacts are touched on in the Screening’s “Impacts Discussion.” The few impacts that are explicitly mentioned deal with ALP construction. Although construction impacts are relevant, discussion of them does not come close to fully

⁹ Or each census tract.

¹⁰ These impacts include hydrogen leakage and combustion risk, local emissions from hydrogen production, local emissions from hydrogen use, climate emissions from hydrogen production, etc.

capturing the burden that a multi-billion-dollar hydrogen pipeline will place on environmental justice communities over the coming decades. CBE and other groups have repeatedly requested that SoCalGas identify environmental justice concerns as they relate specifically to these feasibility studies and have frequently flagged them where SoCalGas has not. SoCalGas has even deferred addressing these concerns to the ESJ Engagement Plan and Environmental Report. However, these matters are not addressed or raised at all here in the Screening Report or the Engagement Plan.

It is difficult to plan mitigation measures for impacts which have not been identified. While the “Impacts Discussion” defers any analysis of the ALP’s impacts to some hypothetical future point, the “Mitigation Measures” section eagerly explains how SoCalGas will minimize these impacts. The discussion shows that SoCalGas has ignored and continues to ignore stakeholder feedback despite claiming in the very same section that:

SoCalGas is committed to meaningfully engaging with ESJ communities and DACs, as well as other stakeholders, during all phases of Angeles Link and seeks to identify and address any concerns that are raised by these groups regarding construction and operation of Angeles Link.¹¹

As explored at length above, the so-called “EJ analysis” in the Engagement Plan and Screening do not perform adequate analysis at all. These reports do not even mention an array of topics already studied in other feasibility reports and noted by participating stakeholders.

IV. Conclusion

CBE appreciates the opportunity to provide feedback. The lack of forward-looking implementation planning or strategic background development in the Engagement Plan and Screening is deeply concerning. For unclear reasons, SoCalGas has emphasized that phase two is when tangible community outreach will happen, but the Engagement plan and Screening do not include adequate planning and development steps to implement any of SoCalGas’s ALP engagement strategies. These reports fail to adequately support a comprehensive framework of community engagement efforts related to the ALP. SoCalGas cannot move forward into the next phase with this woefully insufficient degree of planning in place.

Respectfully Submitted.

Lauren Gallagher
Lauren Gallagher
Theo Caretto

¹¹ Screening at 137.

Jay Parepally
Communities for a Better Environment

CC:
Frank Lopez, SoCalGas
Chester Britt, Arellano Associates
Alma Marquez, Lee Andrews Group
Angeles Link PAG Service List

Exhibit JJ

August 30, 2024

Southern California Gas Company
555 West Fifth Street
Los Angeles, CA 90 013



Submitted via email to ALP1_Study_PAG_Feedback@insigniaenv.com

**Feedback for Southern California Gas Company on the Preliminary
Routing/Configuration Analysis Draft Report**

Communities for a Better Environment (CBE) submits this letter of feedback to Southern California Gas Company (SoCalGas) on the Preliminary Routing/Configuration Analysis Draft Report (the “Report” or “Study”) provided on July 19, 2024. While the Report incorporates some environmental justice (“EJ”) principles for portions of its analysis, it still subordinates equity to maximizing hydrogen transmission from production to offtake sites and capitalizing on connections between the Angeles Link Project (ALP) and the Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES) infrastructure. In addition, regardless of whether hydrogen pipelines are aboveground or underground as they cross through disadvantaged or environmental justice communities, CBE raised numerous, serious safety-related concerns in our feedback to the Safety Study that SoCalGas needs to address in tandem with any routing/configuration planning. This letter describes flaws in the current study and outlines areas in which Preliminary Routing/Configuration Analysis can be improved. Particularly, the Study:

- Should Classify Route Variation 1 as a “Preferred Route” and Explore Additional Opportunities to Minimize Hydrogen Transmission Through DACs/EJ Communities
- Should Prioritize the Combination of Route Variation 1 with Route D and Include a Map of Route Variation 1 with Preferred Route D Only
- Lacks Meaningful Discussion about Informed Consultation with Indigenous Tribes Throughout Potential ALP Routing Areas

I. The Study Should Classify Route Variation 1 as a “Preferred Route” and Explore Additional Opportunities to Minimize Hydrogen Transmission Through DACs/EJ Communities

The Report notes that SoCalGas “considered evaluating hydrogen corridors that would avoid DAC [disadvantaged communities] and ESJ [environmental and social justice] communities entirely.”¹ However, according to the Report, geological constraints between the San Joaquin Valley and LA Basin, such as mountain ranges and protected national forests, limit

¹ Report at 45.

the possible pathways.² The Report rejects the promising concept of not adding pollution burdens to DACs and EJ communities by stating: “Routing completely out of DACs may not be feasible due to various factors including technical challenges and operational considerations that may compromise system efficiency, safety, affordability, and reliability.”³ More specifically, the Study explains that the preferred route alignment for Angeles Link is along the Interstate 5 corridor because of its location “closer to potential offtake facilities” and because it would traverse “more level terrain.”⁴

If Angeles Link will need to cross through environmental justice communities to some extent and track Interstate 5 for some distance, the goal should be to minimize the percentage of routes traversing such communities, given the disproportionate burden of environmental harms placed on DACs/EJ communities over the course of many decades. Route Variation (“RV”) 1 provides a step in the right direction, showing that SoCalGas can reduce main pipeline route mileage traversing DACs in the LA Basin.⁵ Whereas 76-81% of Preferred Routes A, B, and C would cross through DACs, Route Variation 1 could possibly “reduce the distance that traverses DACs to approximately 67-73% of the total route distance, a decrease of approximately 8% by route and overall decreases the percentage of pipeline traversing DACs within LA Basin for these routes by approximately 20%.”⁶ This RV is laudable but ultimately just a first step towards limiting environmental injustice.

The Report classifies routes that pass through all three zones (“Central,” “Collection,” and “Connection”) and include connections to two ARCHES segments as “Preferred Routes.”⁷ Even if RV 1 itself is located entirely within the Central Zone/LA Basin, the limitation of the preferred route designation as needing to pass through all three zones is simply a discretionary choice made by SoCalGas. Since Route Variation 1 still connects to ALP segments that do cross all three zones and both ARCHES segments, SoCalGas should include RV 1 under the preferred route umbrella. Accordingly, Table 4 (“Preferred Routes A, B, C, D Segments and Zones”)⁸ in the Report should be revised to include Route Variation 1; this route variation should not be treated as less serious than the currently designated “Preferred Routes.”

² Report at 45.

³ Id. at 46.

⁴ Id. at 60-61.

⁵ Id. at 46.

⁶ Id.

⁷ Id. at 16, 42.

⁸ Id. at 50.

II. The Study Should Prioritize the Combination of Route Variation 1 with Route D and Include a Map of Route Variation 1 with Preferred Route D Only

The Report considers Route Variation 1 and Route D as separate configurations. It refers to RV 1 as “an alternative routing for the pipeline segment that runs parallel to the Interstate 5 (I-5) in the LA Basin”⁹ that would exist as “a continuation of Preferred Routes A, B, and C, and replaces a portion of 42 miles of segment Y in the previously identified routes.”¹⁰ The Report explains that unlike Routes A, B, and C, “Route D does not contain pipeline segments in LA Basin parallel to the I-5[.]”¹¹ The Report confirms the distinction when it explains that RV 1 serves as “a potential pipeline pathway for Preferred Routes A, B, and C that would potentially reduce main pipeline route mileage traversing DACs in the LA Basin.”¹² Although the Study deems Route Variation 1 and Route D as distinct from one another, these routes could be considered in combination with one another. Preferred Route D reduces the percentage of pipeline distance crossing through DACs to “approximately 69%, which is within the potential Route Variation 1 range.”¹³ In contrast, the distance percentage with respect to traversing DACs for Routes A, B, and C is 76% to 81%.¹⁴ Therefore, if Route Variation 1 and Route D were to be combined, ALP could reduce the overall distance traveled through DACs/EJ communities.

SoCalGas should also provide a map displaying only Route Variation 1 with Preferred Route D. The Report contains a map of RV 1 with Preferred Routes A, B, C (Figure 36)¹⁵ and a map of Route Variation 1 with all four of the preferred routes (Figure 24).¹⁶ Since the Report lacks an illustration focused entirely on Route Variation 1 and Route D, SoCalGas should include such a map in the final report and seriously consider the adoption of Route Variation 1 paired with Route D.

III. The Study Lacks Meaningful Discussion Regarding Informed Consultation with Indigenous Tribes about Potential ALP Routing

The Report is insufficient regarding discussion of impacts to tribal communities and Indigenous peoples’ land. SoCalGas notes it currently has “three members of its CBOSG who represent tribal communities” and that its phase one environmental analysis study “evaluates cultural and tribal cultural resources based on a records search and desktop information.”¹⁷

⁹ Id. at 46 (“Figure 24...illustrates LA Basin and includes Routes A, B, and C...Route Variation 1 would be a part of these routes in their entirety[.]”)

¹⁰ Id. at 59.

¹¹ Id. at 46.

¹² Id.

¹³ Id.

¹⁴ Id.

¹⁵ Id. at 59.

¹⁶ Id. at 44.

¹⁷ Id. at 64.

While these are positive qualities of the ALP process, SoCalGas needs to do significantly more regarding meaningful, active engagement with the many native nations whose ancestral territories could be harmed by the construction and operation of Angeles Link. The potential routes of the ALP will likely cross through many tribes' lands, including those of the Gabrielino/Tongva Nation of the Greater Los Angeles Basin. The Report notes that in future phases of the ALP process, SoCalGas "will also perform a detailed cultural and tribal cultural resources assessment, including field surveys, to identify locations of sensitivity along the preferred pipeline routes."¹⁸ Mere compliance with state and federal permitting requirements is no substitution for early project stage consultation and feedback. The longer that engagement is delayed to future ALP phases, the greater the risk that critical land considerations from tribal communities and governments will be missed or ignored.

IV. Conclusion

Communities for a Better Environment appreciates the opportunity to provide feedback on the Report. The Report's conclusion states that "route alignments will be refined in subsequent phases to reduce disruptions to communities and ecosystems" ¹⁹ To better ensure that stated goal, SoCalGas should rectify all issues raised in this letter before issuing a final report to provide sufficient information for stakeholders to properly assess the ALP.

Sincerely,

Jay Parepally
Lauren Gallagher
Theo Caretto

Communities for a Better Environment

CC:
Frank Lopez, SoCalGas
Chester Britt, Arellano Associates
Alma Marquez, Lee Andrews Group
Angeles Link service list

¹⁸ Id.

¹⁹ Id. at 65.

Exhibit KK

September 6, 2024

Southern California Gas Company
555 West Fifth Street
Los Angeles, CA 90 013



Submitted via email to ALP1_Study_PAG_Feedback@insigniaenv.com

Feedback for Southern California Gas Company on the Environmental Analysis Draft Report

Communities for a Better Environment (CBE) submits this letter of feedback to Southern California Gas Company (SoCalGas) on the Environmental Analysis Draft Report (the “Draft Report”) provided on July 26, 2024. This letter raises several concerns with the Draft Report’s scope and content.

The Draft Report notes that the study was prepared pursuant to California Public Utilities Commission Decision 22-12-055 ordering paragraphs 5(e), (6i), and 6(n). In addition to the Draft Report, SoCalGas has produced a Preliminary Routing-Configuration Analysis Draft Report, a Project Options and Alternatives Draft Report, and a High-Level Feasibility Assessment and Permitting Analysis Draft Report. SoCalGas also produced reports on Angeles Link project (ALP) air pollution emissions, water resource requirements, safety, routing, and more. Yet, the Draft Report does not offer a clear explanation of why critical aspects of project planning were left out of the most detailed report on existing conditions and ALP impacts at regional and local levels. Given the Phase 1 feasibility study and feedback process’ high volume of lengthy documents, SoCalGas should have organized a much more streamlined and comprehensive review process.¹

The Draft Report omits key details and study topics, in addition to its curtailed scope, which SoCalGas must remedy. Particularly, the Report:

- Does Not Include Topics Necessary to Analyze ALP Environmental Impacts and Downplays the Environmental Hazards of Transporting 100% Hydrogen by Pipeline
- Omits Extant Conditions in Multiple Study Areas by Paraphrasing Inapposite Descriptions of Project Impacts and Available Mitigation Measures from Disparate Study Areas

¹ CBE appreciates the two-week extension SoCalGas granted for stakeholders to provide feedback on eight feasibility study reports but emphasizes the substantial amount of staff time required by CBOs and other parties to review reports and offer critical feedback.

- Does Not Evaluate the Environmental Impacts of a Major Route Variation Designed to Reduce the Impact of ALP on Disadvantaged and Environmental Justice Communities

I. The Draft Report Does Not Include Topics Necessary to Analyze ALP Environmental Impacts and Downplays the Environmental Hazards of Transporting 100% Hydrogen by Pipeline

The Draft Report does not analyze hydrogen production impacts on energy demand, water, or air quality; hydrogen usage impacts; or hydrogen safety impacts, which cannot be severed from ALP construction or operation and maintenance. The explanation that the Draft Report is simply a high-level desktop study does not excuse the omission. The report's analysis and discussion are succinct, and do not go into great detail regarding impacts. Rather, the Draft Report simply classifies studied potential impacts as "No Impact" or "Potential Impact" with a brief description of the Study Area's existing conditions. The report suggests that more detailed analysis would occur in formal CEQA and/or NEPA environmental review in the future.²

Hydrogen production and end-use facilities are not severable from the ALP transmission pipeline. Nor are the direct and novel safety risks of transporting high volumes of pure hydrogen through crowded urban areas. Without hydrogen production at the pipeline's starting point and end-use in the Los Angeles basin, the ALP as proposed cannot be constructed. The ALP cannot reach its endpoint without transporting high volumes of pure hydrogen into crowded urban areas. Likewise, without inclusion of these features in the environmental analysis, the analysis is not complete. The ALP study process has already netted sufficient data to include hydrogen production, end-use, and safety-impacts in the Draft Report. It is simply that this information is left out of this report.

a. The Impacts of Hydrogen Production and End-Uses are Identifiable but Omitted

SoCalGas must revise each impacts section to include each of these considerations in order to accurately analyze the ALP's environmental impacts. Specifically, the Draft Report should analyze whether hydrogen production or end-use facilities will be located in each Study Area. If such siting is potentially the case, then the Draft Report should include the impacts of that essential infrastructure in the Study Area discussion. While "the location of production facilities, storage areas, appurtenances, and end users are not known"³ with certainty, neither is the route of ALP which the Draft Report examines. Nonetheless, the Draft Report examines impacts of the pipeline based on proposed routing. Surely, SoCalGas can project where hydrogen

² Draft Report at ES-4.

³ *Id.* at 1-3.

production and use may be located given that the ALP’s production needs, throughput volume, and possible hydrogen demand have all been calculated in other ALP Phase 1 studies.

b. Hydrogen is a Hazardous Material

The Draft Report does not incorporate adequate discussion of hydrogen safety risks and safety measures. As CBE raised previously, hydrogen is a hazardous material which has unique characteristics distinct from natural gas.⁴ It is more leak prone and more easily combusted than natural gas, current leak detection and safety technology are not adequate to protect communities from the risks of hydrogen, and the repeated guarantee that the ALP will be “subject to the same safety considerations as a natural gas pipeline,” is no solace for environmental justice communities.⁵ The Draft Report itself notes: “The transportation of hydrogen gas carries an inherent risk of upset that could result from an inadvertent strike or dig-in by a third party, a leak, or other release of hydrogen.”⁶ While natural gas pipelines also pose leakage risks from strikes or dig-ins, as CBE described in our feedback to the Safety Study,⁷ hydrogen poses different dangers than natural gas and requires *additional* safety considerations. Therefore, SoCalGas’s conclusion in the Draft Report that the Angeles Link “hydrogen pipeline would be subject to the same safety considerations as a natural gas pipeline”⁸ is inaccurate and insufficient. Regardless of whether hydrogen pipelines are aboveground or underground as they cross through disadvantaged or environmental justice communities, the Draft Report must analyze hydrogen specific risks in greater detail and care toward each Study Area’s unique characteristics to accurately analyze the existing conditions and environmental impacts of the ALP.

II. The Draft Report Omits Extant Conditions in Multiple Study Areas by Paraphrasing Inapposite Descriptions of Project Impacts and Available Mitigation Measures from Disparate Study Areas

SoCalGas dismisses regional differences in Study Areas which artificially minimizes the studied ALP impacts. Study Area 1A is entirely within the largely rural San Joaquin Valley and includes sparsely populated portions of Fresno, Kings, and Kern counties.⁹ Study Area 1A is centered around potential ALP Segment C, which does not cross through any major population center. The Draft Report notes there are “[n]o schools, day-care centers, or preschools located

⁴ CBE, Feedback for Southern California Gas Company on the Plan for Applicable Safety Requirements Draft Report, Jul. 19, 2024.

⁵ Draft Report at ES-7, 3-36.

⁶ *Id.* at ES-7.

⁷ CBE, Feedback for Southern California Gas Company on the Plan for Applicable Safety Requirements Draft Report, Jul. 19, 2024.

⁸ Draft Report at ES-7.

⁹ *Id.* at 3-3.

within” 0.25 mile¹⁰ or 0.5 mile¹¹ of Segment C in Study Area 1A. Study Area 1B covers relatively less populated (compared with Study Areas 2, 3A, 3F, and others) portions of northern and northeastern Los Angeles County, including the cities of Lancaster, Palmdale, and Santa Clarita.¹² Per Table 3.2-19,¹³ there are 23 schools and 25 day-care centers within 0.5 mile of Study Area 1B’s Segment B.

Study Area 2 includes urban, densely populated portions of Los Angeles and Orange counties and cities like Los Angeles, Carson, Inglewood, Long Beach, South Gate, and Torrance.¹⁴ Study Area 3F includes portions of the City of Los Angeles, Bell, Huntington Park, Lynwood, Maywood, South Gate, Vernon, and more.¹⁵ The Draft Report notes that 137 schools and 168 day-care centers are located within 0.5 mile of the six possible segments of ALP in Study Area 2.¹⁶ Similarly, there are 159 schools and 133 day-care centers within 0.5 mile of Segment Y in Study Area 3F.¹⁷

Clearly, there are many more sensitive receptors near ALP segments in Study Areas 2 and 3F than in Study Area 1B and Study Area 1A. The Draft Report states that potential hazardous material emissions or impacts near these many sensitive receptors could be avoided or mitigated as detailed in Section 3.3.6.3 for Study Area 2 and 3.9.6.3 for Study Area 3F. With respect to hazardous material transport, use, or disposal in Study Area 2 more generally, the Draft Report states:

[C]onstruction and O&M activities would be anticipated to have a potential for temporary or permanent impact to the public or the environment in the event of an accident or spill during the routine transport, use, and/or disposal of hazardous materials during construction and O&M activities. Most of the Potential impacts could be reduced through the implementation of the AMMs detailed in Section 3.3.6.3 Potential Avoidance and Minimization Measures.¹⁸

Yet, Section 3.3.6.3 tells the reader to refer to the Potential Avoidance and Minimization Measures (PAMMs) for Study Area 1A and Study Area 1B which are significantly less populous than Study Areas 2 and 3F and contain significantly fewer co-hazards.¹⁹ By avoiding accurate,

¹⁰ *Id.* at 3-36

¹¹ *Id.* at 3-33.

¹² *Id.* at 3-51.

¹³ *Id.* at 3-76.

¹⁴ *Id.* at 3-93.

¹⁵ *Id.* at 3-365.

¹⁶ *Id.* at 3-135.

¹⁷ *Id.* at 3-394.

¹⁸ *Id.* at 3-134 to 3-135.

¹⁹ *Id.* at 3-137 to 3-138. For a description of those proposed PAMMs, *see* Draft Report at 3-38, 3-81.

region-specific analysis, the Draft Report fails to identify necessary, location-specific safety measures.

Not only are the PAMMs not tailored to the unique characteristics of each study area, but they are also not tailored to the unique hazardous properties of characteristics of hydrogen. Without any justification for making such a claim, the Draft Report states that “impacts that could be anticipated within Study Area 2 would not be expected to differ from those identified within Study Areas 1A and 1B.”²⁰ According to SoCalGas for Study Area 3F, likewise, the “impacts that could be anticipated within Study Area 3F would not be expected to differ from those within Study Areas 1A and 1B.”²¹ These are just a few instances of numerous, similar conclusory statements made throughout the Draft Report that lump together extremely different locations and sets of conditions.

The hazardous materials PAMMs for Study Area 1A do not include any measures related to schools since there are no such sensitive receptors in that Study Area. For schools and daycare centers in Study Area 1B, the hazardous materials PAMMs for are: (1) “Transportation and disposal routes could be sited at locations well outside of schools or day-care centers” and (2) “Pipeline segments could be sited away from schools or day-care centers.” So, the PAMMs for these more sparsely populated study areas suggest that potential ALP-related dangers could be sited further away from the sensitive receptors. SoCalGas must explain how it is that the abovementioned siting-related PAMMs, which could possibly suffice in low density Study Area 1B, could plausibly apply to the extremely high densities of Study Areas 2 and 3F. Otherwise, it must identify additional safety measures tailored for densely developed areas.

III. The Draft Report Fails to Evaluate the Environmental Impacts of a Major Route Variation Designed to Reduce the Impact of ALP on Disadvantaged and Environmental Justice Communities

SoCalGas’ Preliminary Routing-Configuration Analysis Draft Report identified a routing scenario, “Route Variation 1,” which limited the ALP’s traversal of disadvantaged communities in the Los Angeles area. Unfortunately, the Draft Report claims SoCalGas did not have enough time to analyze this fifth scenario because it “was identified late in the Phase 1 analysis.” CBE raised the need to plan pipelines routes around, not through, environmental justice communities in response to SoCalGas’ Preliminary Routing & Configuration Assessment study description at the earliest available opportunity provided by the ALP’s community engagement process.²² CEJA and Sierra Club raised the very same issue to the CPUC in 2022, *over a year before phase*

²⁰ Draft Report at 3-138.

²¹ *Id.* at 3-397.

²² CBE, Additional Feedback for Southern California Gas Company on Angeles Link Project Phase One Technical Approaches, at 2, Nov. 3, 2023.

*I study descriptions were released.*²³ The Equity Principles for Hydrogen document, which SoCalGas has reviewed and responded to, raises the need to site dangerous energy infrastructure outside of environmental justice communities. The Routing Study itself did evaluate Route Variation 1 in a fair amount of detail, and CBE provided detailed feedback about that route variation.²⁴ It is not clear why SoCalGas and its contractors did not have enough time to evaluate Route Variation 1 in the Environmental Analysis when the Routing Study was released to ALP process participants a week before the Environmental Analysis Draft Report.

The claim at this late stage that SoCalGas lacked time to evaluate the alternative route is not excusable. Pipeline routes that avoid further burdening environmental justice communities should have been planned from the outset. Instead, the single “variation” of the ALP that does so is not incorporated in the Environmental Analysis or Environmental Justice Analysis draft studies. As SoCalGas was informed over two years ago:

The community in Wilmington is 90% Latinx and is rated in the top 90% most polluted and vulnerable to health impacts.^a

The life expectancy in Wilmington is the sixth lowest of the 35 community plan areas in Los Angeles.^b These impacts are not accidental. The history of redlining and white flight in Los Angeles is intertwined with the racially discriminatory siting of fossil fuel infrastructure and other polluting facilities.^c

The Wilmington community fights for environmental and climate justice, a phrase that bears far more weight for the families living in the shadows of refineries. Community members have been seeking to phase out oil extraction, refining and transportation for decades. By following SoCalGas’ existing rights-of-way through Los Angeles, the Angeles Link Project could exacerbate existing environmental injustices. It is absolutely imperative that the clean energy future does not replicate the injustices of the past by giving new life to pipelines and polluting these communities anew.²⁵

²³ A. 22-02-007, Opening Brief of Sierra Club and the California Environmental Justice Alliance, at 37-38, July 29, 2022.

²⁴ CBE, Feedback for Southern California Gas Company on the Preliminary Routing/Configuration Analysis Draft Report, Aug. 30, 2024.

²⁵ A. 22-02-007, Opening Brief of Sierra Club and the California Environmental Justice Alliance, at 37-38, July 29, 2022. (Internal citations reproduced here:

- a. Yvette Cabrera, This Young Environmental Activist Lives 500 Feet from a Drilling Site, HuffPost, (Apr. 19, 2018), https://www.huffpost.com/entry/ashley-hernandez-environmentaljustice_n_5ad7ad3fe4b03c426daaeab3.
- b. Adam Mahoney, Deaths Have Spiked in This Polluted Port Community. Grist, (Mar. 31, 2022), <https://grist.org/health/excess-deaths-wilmington-california-covid-pollution/>.
- c. CalEPA, Pollution and Prejudice: Redlining and Environmental Injustice in California, (Aug. 16, 2021), <https://storymaps.arcgis.com/stories/f167b251809c43778a2f9f040f43d2f5>).

IV. Conclusion

CBE appreciates the opportunity to provide feedback on the Draft Report.²⁶ While the Draft Report begins to identify key issues for environmental analysis, its lack of discussion on serious areas of concern mean that the identified ALP impacts and proposed mitigation measures provide only a fraction of the whole picture. CBE encourages SoCalGas to seriously address the issues identified here before issuing a final Environmental Analysis report.

Sincerely,

Jay Parepally
Theo Caretto

Communities for a Better Environment

CC:

Frank Lopez, SoCalGas
Chester Britt, Arellano Associates
Alma Marquez, Lee Andrews Group
Angeles Link service list

²⁶ At this time, CBE reserves comment on the Draft Report's hydrogen delivery and non-hydrogen options/alternatives analysis and refers SoCalGas to CBE's prior feedback on alternatives as well as the Equity Principles for Hydrogen.

Exhibit LL



Angeles Link – Phase 1 Quarterly Report (Q3 2024)

For the period of July 1, 2024 through September 30, 2024

Appendices 4 to 10

TABLE OF CONTENTS (APPENDICES 4 - 10)

APPENDIX 4 – Attendee Lists for PAG and CBOSG Workshop Meetings	Page
CBOSG July Invitee List	Appendix 4: 1-2
CBOSG July Attendees List	Appendix 4: 3
PAG July Invitee List	Appendix 4: 4-6
PAG July Attendees List	Appendix 4: 7-8
APPENDIX 5 – Workshop Meetings Transcripts	Page
July 23 Transcripts	Appendix 5: 1-177
July 24 Transcripts	Appendix 5: 178-360
APPENDIX 6 – CBOSG Workshop Meeting Materials	Page
July 23 Presentation Materials	Appendix 6: 1-58
APPENDIX 7 – PAG Workshop Meeting Materials	Page
July 24 Presentation Materials	Appendix 7: 1-51
APPENDIX 8 – Summary of CBOSG Workshop Meeting	Page
July 23 Summary of CBOSG Stakeholder Meeting	Appendix 8: 1-4
APPENDIX 9 – Summary of PAG Workshop Meeting	Page
July 24 Summary of PAG Stakeholder Meeting	Appendix 9: 1-4
APPENDIX 10 – Hydrogen Safety Panel Review	Page
Hydrogen Safety Panel Review Process	Appendix 10: 1-2
Hydrogen Safety Panel Comments/Markup Report	Appendix 10: 3-12
Hydrogen Safety Panel Design/Safety Review	Appendix 10: 13-21



Appendix 4 - Attendee Lists for PAG and CBOSG Workshop Meetings (including those invited)

CBOSG July Invitee List

Organization	First Name	Last Name
Protect Playa Now	Faith	Myhra
Protect Playa Now	Kevin	Weir
Ballona Wetland Institute	Marcia	Hanscom
Ballona Wetland Institute	Marcia	Hanscom
California Greenworks	Mike	Meador
California Greenworks	Jessy	Shelton
California Greenworks	Michael	Berns
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Roberto	Cabrales
Communities for a Better Environment	Ambar	Rivera
Communities for a Better Environment	Roselyn	Tovar
Communities for a Better Environment	Jay	Parepally
Communities for a Better Environment	Lauren	Gallagher
Breathe Southern California	Marc	Carrel
Breathe Southern California	Tigran	Agdaian
Nature for All	Belen	Bernal
Nature for All	Steven	Ochoa
Climate Action Campaign	Ayn	Craciun
Climate Action Campaign	Lexi	Hernandez
Vote Solar	Andrea	Leon-Grossmann
Food and Water Watch	Andrea	Vega
Food and Water Watch	Chirag	Bhakta
Defend Ballona Wetlands	Robert Roy	van de Hoek
Defend Ballona Wetlands	Jackson	Garland
Physicians for Social Responsibility - Los Angeles	Alex	Jasset
Go Green Initiative	Jill	Buck
Chinatown Service Center	Daisy	Ma
Chinatown Service Center	Kerry	Situ
Soledad Enrichment Action	Enrique	Aranda
Soledad Enrichment Action	Nathan	Aranda
Communities for Responsible Community Development	Ricardo	Mendoza
Communities for Responsible Community Development	Kenta	Estrada-Darley
Watts/Century Latino Organization	Autumn	Ybarra
Little Tokyo Community Council	Kristin	Fukushima
Little Tokyo Community Council	Chris	Fukushima
Reimagine LA Foundation	Rashad	Trapp
Reimagine LA Foundation	Shawna	Andrews
Reimagine LA Foundation	Raul	Claros
Mexican American Opportunity Foundation	Ciriaco "Cid"	Pinedo
Watts Labor Community Action Committee	Timothy	Watkins
Watts Labor Community Action Committee	Thelmy	Alvarez
LA Black Workers Center/Care at Work, UCLA Labor Center	Andrea	Slater
LA Black Workers Center/Care at Work, UCLA Labor Center	Deja	Thomas
LA Black Workers Center/Care at Work, UCLA Labor Center	Andrea	Slater
Alma Family Services	Lourdes	Caracoza
Alma Family Services	Aida	Vega
Alma Family Services	Diego	Rodriguez
Southside Coalition of Community Health Centers	Andrea	Williams
Southside Coalition of Community Health Centers	Lucy	Castro
Greater Zion Church Family	Michael	Fisher
Greater Zion Church Family	Danny	Harrison
Greater Zion Church Family	Aquyla	Walker
Faith and Community Empowerment (FACE)	Hypin	Im
YMCA of Greater Los Angeles	Gerry	Salcedo
Parents, Educators/Teachers, and Students in Action (PESA)	Seymour	Amster
Parents, Educators/Teachers, and Students in Action (PESA)	Ella	Cavlan
Parents, Educators/Teachers, and Students in Action (PESA)	Olivia	Fike
Parents, Educators/Teachers, and Students in Action (PESA)	Araksya	Nordikyan
Los Angeles Indigenous People's Alliance	Luis R.	Pena

CBOSSG July Invitee List

Organization	First Name	Last Name
Los Angeles Indigenous People's Alliance	Jamie	Patino
California Native Vote Project	Rene	Williams
Comunidades Indigenas en Liderazgo (CIELO)	Odilia	Romero

CBOSG July Workshop Attendees

CBOSG					
Organization	First Name	Last Name	In Person	Zoom	
Little Tokyo LA	Kisa	Ito			X
Southside Coalition	Andrea	Williams			X
California Greenworks	Michael	Berns	X		
Ballona Wetlands Institute	Marcia	Hanscom	X		
Reimagine LA	Rashad	Rucker-Trapp			X
MY Workforce Solutions LLC	Michelle	Yanez	X		
Defend Ballona Wetlands	Robert	Roy van de Hoek	X		
Coalition for Responsible Community Development	Kenta	Estrada-Darley	X		
Soledad Enrichment Action	Enrique	Aranda	X		
Go Green Initiative	Jill	Buck			X
Coalition for Responsible Community Development	Ricardo	Mendoza	X		
Communities for a Better Environment	Jay	Parepally			X
Physians for Social Responsibility	Alex	Jasset			X
Mexican American Opportunity Foundation	Ciriaco "Cid"	Pinedo			X
Faith and Community Empowerment	Hypein	Im			X
Food and Water Watch	Andrea	Vega			X
Reimagine LA	Raul	Claros	X		
Non CBOSG					
California Public Utilities Commission	Christopher	Arroyo			X
Insignia Environmental	Armen	Keochekian			X
Insignia Environmental	Julie	Roshala			X
Insignia Environmental	Anniken	Lydon			X
TOTAL CBOs					15

PAG July Invitee List

Organization	First name	Last name
Agricultural Energy Consumers Association	Michael	Boccardo
Air Products	JP	Gunn
Air Products	Lorraine	Paskett
Air Products	Seth	Hilton
Air Products	Miles	Heller
Air Products	Vince	Wiraatmadja
ARCHES	Angelina	Galiteva
ARCHES	Tyson	Eckerle
Bizfed	Sarah	Wiltfong
Bloom Energy	Christina	Tan
California Air Resources Board	Steve	Cliff
California Energy Commission	Rizaldo	Aldas
California Hydrogen Business Council	Katrina	Fritz
California Manufacturers and Technology Association	Lance	Hastings
California Manufacturers and Technology Association	Robert	Spiegel
California Public Utilities Commission	Arthur (Iain)	Fisher
California Public Utilities Commission	Christopher	Arroyo
California Public Utilities Commission	Christopher	Myers
California Public Utilities Commission	Matthew	Taul
California Public Utilities Commission	Jack	Chang
California Public Utilities Commission	Sasha	Cole
California Public Utilities Commission	Nick	Zanjani
California Public Utilities Commission	Nathaniel	Skinner
California Public Utilities Commission	Kaj	Peterson
California Public Utilities Commission	Benjamin	Tang
California Water Data Consortium	Deven	Upadhay
City of Burbank	Anthony	D'aquila
City of Long Beach - Long Beach Water	Diana	Tang
City of Long Beach - Utilities	Tony	Foster
City of Long Beach - Utilities	Dennis	Burke
City of Long Beach - Utilities	Heather	Hamilton
City of Long Beach*	Mario	Cordero
Clean Energy	Nora	Sheriff
Clean Energy Strategies representing the Utility Consumers' Acti	Tyson	Siegele
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Shara	Burwell
Communities for a Better Environment	Roberto	Cabrales
Communities for a Better Environment	Jay	Parepally
Communities for a Better Environment	Lauren	Gallagher
Earth Justice	Sara	Gersen
Energy Independence Now	Brian	Goldstein
Environmental Defense Fund	Joon Hun	Seong
Environmental Defense Fund	Michael	Colvin
Environmental Justice League	Russell	Lowery

Fernandeno Tataviam Band of Mission Indians	Ray	Salas
GoBiz	Deedee	Myers
Green Hydrogen Coalition	Hope	Fasching
Green Hygroden Coalition	Sergio	Dueñas
Green Hydrogen Coalition	Janice	Lin
Harbor Trucking Association	Karla	Sanchez
Harbor Trucking Association	Matthew	Schrap
Independent Energy Producers Association*	Jan	Smutny Jones
Independent Energy Producers Association*	Sara	Fitzsimon
International Longshore and Warehouse Union Local 13	Sal	DiConstanzo
International Longshore and Warehouse Union Local 13	Mark	Jurisc
International Longshore and Warehouse Union Local 13	Sophia	Dubrovich
LAWDP	Joseph	Ortiz
Local Union 250	Nathaniel	Williams
Local Union 250	Hector	Carbajal
Los Angeles Department of Water and Power	Aaron	Guthrey
Los Angeles Department of Water and Power	Marty	Adams
Los Angeles Department of Water and Power	Paul	Habib
Los Angeles Department of Water and Power	Nermina	Rucic
Los Angeles Department of Water and Power	Jesse	Vismonte
Los Angeles Department of Water and Power	Xinhe	Le
Los Angeles Department of Water and Power	Eric	Hill
Metropolitan Water District	Deven	Upadhyay
Natural Resources Defense Council	Pete	Budden
Pasadena Water & Power	Erik	Johnson
Port of Los Angeles	Mike	Galvin
Port of Los Angeles	Tim	DeMoss
Protect our Communities Foundation	Malinda	Dickenson
Reimagine LA	Rashad	Rucker-Trapp
Reimagine LA	Raul	Claros
Sierra Club	Monica	Embrey
Sierra Club	Julia	Dowell
Sierra Club	Teresa	Cheng
South Coast AQMD	Maryam	Hajbabaei
South Coast AQMD	Sam	Cao
South Coast AQMD	Aaron	Katzenstein
South Coast AQMD	Vasileios	Papapostolou
Southern CA Water Coalition	Charley	Wilson
Southern California Association of Governments	Kome	Ajise
Southern California Generation Coalition	Norman	Pedersen
Southern California Leadership Council	Richard	Lambros
Southern California Pipe Trades	Rodney	Cobos
Southern California Public Power Authority	Charles	Guss
The United Association	Aaron	Stockwell
UC Davis Insitute of Transportation Studies	Lukas	Wernert
UC Davis Sustainable Transportation Energy Pathways	Lew	Fulton
UCI Advanced Power and Energy Program	Jack	Brouwer

University of CA Riverside	Arun	Raju
UC Davis Sustainable Transportation Energy Pathways	Stefania	Mitova
Utility Reform Network (TURN)	Marcel	Hawiger
Utility Reform Network (TURN)	Marna	Paintsil Anning
Utility Workers Union of America 483	Ernest	Shaw
Utility Workers Union of America 483	Robin	Downs
Utility Workers Union of America 483	Anthony	Flores
Utility Workers Union of America Local 132	Joe	Moreno

PAG Q3 Meeting - July 24, 2024

PAG

Organization	First name	Last name
Agricultural Energy Consumers Association	Michael	Boccardo
Air Products	Miles	Heller
Bizfed	Sarah	Wiltfong
California Energy Commission	Rizaldo	Aldas
California Hydrogen Business Council	Katrina	Fritz
California Public Utilities Commission	Sasha	Cole
California Public Utilities Commission	Arthur (Iain)	Fisher
California Public Utilities Commission	Christopher	Arroyo
California Public Utilities Commission	Matthew	Taul
California Public Utilities Commission	Benjamin	Tang
Clean Energy Strategies representing the Utility Consumers' Action Network	Tyson	Siegele
Energy Independence Now	Brian	Goldstein
Environmental Defense Fund	Joon Hun	Seong
Environmental Defense Fund	Michael	Colvin
Green Hydrogen Coalition	Janice	Lin
Harbor Trucking Association	Matthew	Schrap
Independent Energy Producers Association	Sara	Fitzsimon
International Longshore and Warehouse Union Local 13	Sal	DiConstanzo
Los Angeles Department of Water and Power	Aaron	Guthrey
Los Angeles Department of Water and Power	Jesse	Vismonte
Pasadena Water and Power	Erik	Johnson
Sierra Club	Julia	Dowell
South Coast AQMD	Aaron	Katzenstein
South Coast AQMD	Sam	Cao
Southern California Generation Coalition	Norman	Pedersen
Utility Workers Union of America 483	Ernest	Shaw
Utility Workers Union of America 483	Robin	Downs
UA Local 250	Brandon	Mortoff
UA Southern California District Council	Wyatt	Stiles
United Association Local 250	Ben	Clayton
United Association Local 250	Matthew	Williams
United Association Local 364	Tracy	Gibson
United Association Local 364	John	Sisley

Non PAG

Arellano Associates*	Chester	Britt
Arellano Associates*	Nancy	Verduzco
Arellano Associates*	Suzanna	Tran
Insignia Environmental	Armen	Keochekian
Insignia Environmental	Anniken	Lydon
Insignia Environmental	Julie	Roshala
Lee Andrews Group*	Alma	Marquez
Lee Andrews Group*	Keshanna	Wiley

SoCalGas*
SoCalGas
SoCalGas*
SoCalGas*
SoCalGas*
SoCalGas*
SoCalGas*
SoCalGas*
SoCalGas*

Emily	Grant
Andy	Carrasco
Frank	Lopez
Amy	Kitson
Jessica	Foley
Shirley	Arazi
Yuri	Freedman
Neil	Navin
Chanice	Allen

Exhibit MM



Angeles Link – Phase 1 Quarterly Report (Q3 2024)

For the period of July 1, 2024 through September 30, 2024

October 2024



TABLE OF CONTENTS

I.	Overview.....	3
II.	Phase 1 Feasibility Studies Update And Responses To Stakeholder Feedback.....	4
	A. Draft Studies.....	4
	Summary Of General Comments/Global Responses.....	5
III.	Stakeholder Engagement Activities.....	6
	A. PAG and CBOSG Stakeholder Group Activity Summary.....	6
	July 2024 Workshop	6
	Expanded Regional Outreach Efforts	6
IV.	Alliance For Clean Renewable Hydrogen Energy Systems.....	7
V.	Summary Of Appendices.....	7

Appendices

Appendix 1 – Draft Reports

Appendix 1A – Safety Study, Water Evaluation, Workforce Study

Appendix 1B – GHG Study, NOx Study

Appendix 1C – ESJ Plan and Screening

Appendix 1D – Production Study, Design Study, Routing Analysis

Appendix 1E – Permitting Analysis, Alternatives Study, Cost Effectiveness Study

Appendix 1F – Environmental Analysis (Part 1 - Report)

Appendix 1G – Environmental Analysis (Part 2 - Attachments A & B)

Appendix 1H – Environmental Analysis (Part 3 - Attachments C, D, E, & F)

Appendix 1I – Affordability Framework

Appendix 2 – PAG and CBOSG Written Comments

Appendix 3 – SoCalGas Response to Comments

Appendix 4 – Attendee List for PAG and CBOSG Workshop Meetings

Appendix 5 – Workshop Meetings Transcripts

Appendix 6 – CBOSG Workshop Meeting Materials

Appendix 7 – PAG Workshop Meeting Materials

Appendix 8 – Summary of CBOSG Workshop Meeting

Appendix 9 – Summary of PAG Workshop Meeting

Appendix 10 – Hydrogen Safety Panel Review

I. OVERVIEW

Angeles Link is envisioned as a non-discriminatory, open-access pipeline system dedicated to public use, transporting up to 1.5 million metric tons of clean renewable hydrogen¹ from regional third-party production and storage sites to end users across Central and Southern California, including the Los Angeles Basin and the Ports of Los Angeles and Long Beach. On December 15, 2022, the California Public Utilities Commission (CPUC) adopted Decision (D.) 22-12-055 (Decision) authorizing SoCalGas's Angeles Link Memorandum Account (Memorandum Account) to track costs for advancing the first phase (Phase 1) of Angeles Link, including stakeholder engagement activities and the completion of a portfolio of feasibility studies. SoCalGas established the Memorandum Account on December 21, 2022.

SoCalGas hereby submits this Q3 2024 quarterly report, for the period July 1, 2024 through September 30, 2024 (Q3-2024)² pursuant to Ordering Paragraph (OP) 3(h) of the Decision.³ This report is also served on the service list for the Angeles Link proceeding⁴ and is publicly available at SoCalGas's website. 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 1.⁵

This Q3 2024 quarterly report represents a significant milestone of Angeles Link because SoCalGas has released all Phase 1 draft feasibility studies to the Planning Advisory Group (PAG) and Community Based Stakeholder Organization Group (CBOSG). Draft studies released during Q3 2024 are discussed in Section II.A and provided in Appendix 1.⁶

¹ D.22-12-055 defines clean renewable hydrogen as "hydrogen that does not exceed a standard of four kilograms of carbon dioxide-equivalent produced on a lifecycle basis per kilogram of hydrogen produced." D.22-12-055, Decision Approving the Angeles Link Memorandum Account to Record Phase One Costs (Dec. 20, 2022) ("Decision") at 66 (Finding of Fact 35).

² SoCalGas released the Draft Framework for Affordability Considerations (Affordability Framework) to the Planning Advisory Group and Community Based Stakeholder Organization Group on September 20, 2024 within Q3 2024. The two-week feedback window closed on October 4, 2022. Given that the release of the Affordability Framework occurred in Q3, responses to stakeholder comments on this document were included in this Q3 report (see Appendix 3).

³ *Id.* at 74-75.

⁴ A.22-02-007

⁵ D.22-12-055 at 74-75, OP 3(h).

⁶ SoCalGas's Phase 1 portfolio of feasibility studies prepared in compliance with D.22-12-055 includes a total of 16 studies. One additional plan (ESJ Plan) was prepared voluntarily in response to stakeholder input. The Angeles Link Draft Demand Report (Demand Study) was submitted as part of the Q1 2024 Quarterly Report. The Hydrogen Leakage Assessment Draft Report (Leakage Study) was submitted as part of the Q2 2024 Quarterly Report. The remaining 14 studies are provided herein. Studies reflect the best available information at the time of the studies' development.

II. PHASE 1 FEASIBILITY STUDIES UPDATE AND RESPONSES TO STAKEHOLDER FEEDBACK

SoCalGas's portfolio of Phase 1 feasibility studies includes preliminary engineering, design, and environmental feasibility studies evaluating a variety of topics, including potential supply, demand, end uses, pipeline configurations and storage solutions, and analyzing certain identified alternatives. 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. The complete Phase 1 portfolio of draft studies have been released to the PAG and CBOSG. The studies are reflective of the best available information at the time of the studies' development. Given that the landscape of California's energy transition is dynamic, SoCalGas anticipates that the market conditions and information guiding Angeles Link will continue to evolve over time.

A. DRAFT STUDIES

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 1.⁷ This section provides key updates from this reporting period on the status of the feasibility studies being undertaken in compliance with the Decision and in furtherance of Angeles Link.

During this Q3 2024 reporting period, SoCalGas shared 12 draft studies as well as produced an Environmental and Social Justice (ESJ) Community Engagement Plan and an Angeles Link Phase 1 Framework for Affordability Considerations (collectively, studies).⁸ These studies are presented in the order they were published and include:

1. Evaluation of Applicable Safety Requirements (Safety Study)⁹
2. Water Resource Evaluation (Water Evaluation)
3. Workforce Planning & Training Evaluation (Workforce Study)
4. Greenhouse Gas (GHG) Emissions Evaluation (GHG Study)
5. Nitrogen Oxide (NOx) and other Air Emissions Assessment (NOx Study)
6. Environmental Social Justice Plan (ESJ Plan) and Screening (ESJ Screening)
7. Production Planning & Assessment (Production Study)

⁷ D.22-12-055 at 74-75, OP 3(h).

⁸ The Demand Study was submitted as part of the Q1 2024 Quarterly Report. The Leakage Study was submitted as part of the Q2 2024 Quarterly Report. The Safety Study was released at the end of Q2 2024, but the close of the comment period was in Q3 2024.

⁹ The original title of the Safety Study was "Plan for Applicable Safety Requirements;" however, the title has been updated to the "Evaluation of Applicable Safety Requirements."

8. Pipeline Sizing & Design Criteria Study (Design Study)
9. Preliminary Routing/Configuration Analysis (Routing Analysis)
10. High-Level Feasibility Assessment and Permitting Analysis (Permitting Analysis)
11. Project Options and Alternatives (Alternatives Study)
12. High-Level Economic Analysis & Cost Effectiveness Study (Cost Effectiveness Study)
13. Environmental Analysis
14. Framework for Affordability Considerations (Affordability Framework)

In compliance with D.22-12-015, Ordering Paragraph (OP) 3(h), SoCalGas sought feedback from the PAG and CBOSG (see Appendix 2 – PAG and CBOSG Written Comments), summarized in this Quarterly Report, and provided responses to comments (see Appendix 3 - SoCalGas Response to Comments).

Summary of General Comments/Global Responses

This summary provides an overview of thematic topics provided in written comments during the Q3 2024 period. General responses, referred to as “global responses,” together with detailed responses to written comments received during the Q3 2024 period are included in Appendix 3.

- **Water Availability and Geographic Considerations for Third-Party Production:** Stakeholders stated that the Water Resources Evaluation (Water Evaluation) does not adequately evaluate the availability of water for specific potential hydrogen third-party production areas given potential geographic challenges, cost considerations, and supply constraints that may apply to water supply availability at specific production locations.
- **Stakeholder Engagement and Consideration of Environmental Social Justice:** Stakeholders provided input on the timeframe to review the studies released in Q3.¹⁰ Stakeholders submitted comments expressing their support for Angeles Link, including support of the ESJ Plan, the Routing Analysis, and the Design Study. Various stakeholders expressed concern about the lack of direct community engagement with environmental justice communities. Additionally, various stakeholders expressed concern about the level of detail and analysis in the ESJ Screening component of the ESJ Plan and stated SoCalGas did not adequately consider the Equity Principles for Hydrogen in the ESJ Plan.
- **Safety:** Several stakeholders commented about overarching safety concerns of a new hydrogen pipeline and local community impacts.
- **Routing, Route Variation, and ESJ:** Stakeholders expressed concern about SoCalGas’s Routing Analysis and consideration of Disadvantaged Communities and Environmental Social Justice.

¹⁰ SoCalGas extended several feedback windows as requested.

- **Biomass Gasification and Emissions:** Various stakeholders addressed SoCalGas’s GHG Study and NOx Study assumption that biomass gasification¹¹ would not produce GHG and NOx emissions, and as a result, various stakeholders stated the conclusions of the studies overstate potential GHG and NOx reductions.
- **Affordability Framework:** Stakeholders commented about the hydrogen demand assumptions, the relative estimated project cost, and the need to further explore non-ratpayer funding options. Comments also acknowledged that the Affordability Framework appropriately outlines a process to analyze and consider affordability, rate design, and cost allocation issues when Angeles Link specifics are more certain.

As previously noted, detailed Global Responses and responses to comments are provided in Appendix 3.

III. STAKEHOLDER ENGAGEMENT ACTIVITIES

SoCalGas values the ongoing engagement of the PAG and CBOSG. Stakeholder engagement activities during Q3 2024 are further described below.

A. PAG and CBOSG Stakeholder Group Activity Summary

During this reporting period, in compliance with the Decision’s directive to conduct quarterly stakeholder engagement meetings, two workshops were held, one with the PAG and one with the CBOSG. Hybrid meetings were held with both an in-person option and a virtual option over Zoom.

July 2024 Workshop

SoCalGas hosted two July workshops - one July 23rd meeting with the CBOSG and one July 24th meeting with the PAG. SoCalGas presented draft reports for the Production Study, Routing Study, Design Study, and ESJ Plan and Screening.

Expanded Regional Outreach Efforts¹²

In response to PAG and CBOSG feedback, SoCalGas expanded its engagement beyond the CBOSG members to organizations within the broader region of SoCalGas’s service 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 Q3 2024

¹¹ Gasification is a process that converts organic or fossil-based carbonaceous materials at high temperatures (>700°C), without combustion, with a controlled amount of oxygen and/or steam into carbon monoxide, hydrogen, and carbon dioxide. The carbon monoxide then reacts with water to form carbon dioxide and more hydrogen via a water-gas shift reaction. Adsorbers or special membranes can separate the hydrogen from this gas stream. Hydrogen Production: Biomass Gasification | Department of Energy.

¹² In accordance with the Phase 1 Decision, costs associated with these outreach activities have not been recorded to the Angeles Link Memorandum Account.

reporting period, SoCalGas met with 3 organizations. Between Q2 and Q3 of 2024, SoCalGas met with a total of 32 organizations as part of the expanded engagement efforts.

IV. ALLIANCE FOR CLEAN RENEWABLE HYDROGEN ENERGY SYSTEMS

ARCHES is California’s public-private partnership formed to create a sustainable statewide clean renewable hydrogen hub in California (“California H2 Hub”) and is leading the California initiative to accelerate clean renewable hydrogen projects, including hydrogen pipeline systems.¹³ Consistent with D.22-12-055, SoCalGas joined ARCHES in 2022 and Angeles Link was included in the proposal under ARCHES application to the U.S. Department of Energy (DOE) for federal funding of the California H2 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.¹⁴ On July 17, 2024, ARCHES and the DOE announced the signing of a formal \$12.6 billion cooperative agreement, including up to \$1.2 billion from the DOE and \$11.4 billion in public and private funds, to support development of a network of clean renewable hydrogen production sites, transporters, and end users that incorporates multiple facilities in California, with the goal of significantly decarbonizing the transportation, industrial, and electric generation sectors in the state, including public transportation, heavy duty trucking, and port operations in the Los Angeles Basin.

V. SUMMARY OF APPENDICES

This section provides a summary of the appendices contained within the Q3 2024 quarterly report.

- **Appendix 1 (A to I) – Draft Reports:** Appendix 1A to Appendix 1I include the 14 completed draft studies prepared as part of the Phase 1 portfolio of feasibility studies. Please refer to Section II. A. Draft Studies for the list of the studies.
- **Appendix 2 – PAG and CBOSG Written Comments:** Written comment letters received during Q3 2024 providing feedback on SoCalGas’s draft studies are included in their original format in Appendix 2. SoCalGas received a total of 51 comment letters on the 14 studies released during Q3 2024.
- **Appendix 3 – SoCalGas Response to Comments:** SoCalGas provides comprehensive responses to the 51 comment letters in Appendix 3.
- **Appendix 4 – Attendee Lists for PAG and CBOSG Workshop Meetings:** Appendix 4 includes a complete list of workshop meeting participants as well as those invited who did not attend.
- **Appendix 5 – Workshop Meetings Transcripts:** Appendix 5 includes certified court reporter transcripts capturing verbal feedback and meeting discussions from the PAG/CBOSG workshop meetings during the third quarter.

¹³ Regional Clean Hydrogen Hubs: <https://www.energy.gov/oced/regional-clean-hydrogen-hubs-0>

¹⁴ California wins up to \$1.2 billion from feds for hydrogen: <https://archesh2.org/california-wins-up-to-1-2-billion-from-feds-for-hydrogen/>

- **Appendix 6 – CBOSG Workshop Meeting Materials:** Materials shared at the CBOSG workshop meeting during the third quarter are provided in Appendix 6.
- **Appendix 7 – PAG Workshop Meeting Materials:** Materials shared at the PAG workshop meeting during the third quarter are provided in Appendix 7.
- **Appendix 8 – Summary of CBOSG Workshop Meeting:** A summary of the CBOSG stakeholder workshop meeting is provided in Appendix 8.
- **Appendix 9 – Summary of PAG Workshop Meeting:** A summary of the PAG stakeholder workshop meeting is provided in Appendix 9.
- **Appendix 10 – Hydrogen Safety Panel Review:** An overview of the comments provided by the Hydrogen Safety Panel on the Safety Study is provided in Appendix 10.