APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY FOR ANGELES LINK PHASE 2 A.24-12-011

DATA REQUEST SCGC-SCG-DR03
Date Requested: August 26, 2025, Submitted: September 10, 2025

Supplement: September 17, 2025

QUESTION 3.4:
Please provide all workpapers, reports, memos and calculations that support the 24% contingency factor that is discussed at page BW-22 of Chapter 4.

Supplemental RESPONSE 3.4:

SoCalGas objects to this request on the grounds it is overly broad and unduly burdensome to the extent it seeks "all workpapers, reports, memos and calculations." SoCalGas further objects to this request to the extent it seeks documents that are subject to the attorney-client privilege and/or attorney work product doctrine. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

As recognized in AACE International Recommended Practice No. 97R-18, contingency is appropriately included in estimates "to quantify the uncertainty and risk associated with the specific project." Contingency factors are generated through the performance of project-specific risk assessments that are created and reviewed by key stakeholders. The contingency allocation for Angeles Link follows this same process. The risk assessment accounts for unforeseen costs expected during Phase 2 resulting from the following:

- Scope: Activities, deliverables, and quantities are removed or added
- Pricing: Cost rates for internal and external resources
- Production: Required hours to complete engineering deliverables
- Schedule: Overall schedule duration impacts

In alignment with AACE 62R-11, risks were assessed, and their impacts were categorized based on whether they were designated as scope, pricing, production, or schedule-based. This risk assessment was utilized as a reference to help determine the High and Low values utilized in the model that was used to derive the contingency amount (Monte Carlo Simulation).

The Monte Carlo simulation was run in compliance with AACE International Recommended Practices 118-21 for contingency determination using Monte Carlo Simulations. Through this analysis, SoCalGas utilized the detailed estimate as the base case and then used the risk assessment to help determine Low and High Ranges of each cost category. As shown in Figure 1 below, Scope Maturity (which was under 5%) is the key factor in determining the appropriate contingency amount. Therefore, SoCalGas utilized the guide set in AACE RP 18R-97 and selected P85 based on that parameter, see Figure 1. P85 represents there is an 85% chance based on current information that the Phase 2 Engineering Design actual costs will fall at or below the estimated value.

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The Monte Carlo simulation was run in two parts, one for the pipeline scope (Table 1) and one for the compressor station scope (Table 2). Each simulation generated an S-Curve and Probability table from P1 to P99 for the pipeline (Figures 2 and 3, respectively) and compressor station (Figures 4 and 5) scopes of work. These simulations were performed due to the nature of the risks and how they may differ by scope.

Please note that the contingency percentages selected using the P85 probability are shown in Tables 1 and 2 under "Unallocated Provision -- %UC". The table cell labeled "adjusted cost" reflects the total direct cost for the pipeline ($119.2M) and compressor station ($71.3M) elements comprising SoCalGas's Phase 2 request for engineering design costs explained in the Testimony of Brian Walker.

Figure 1 – AACE Contingency vs Maturity Chart

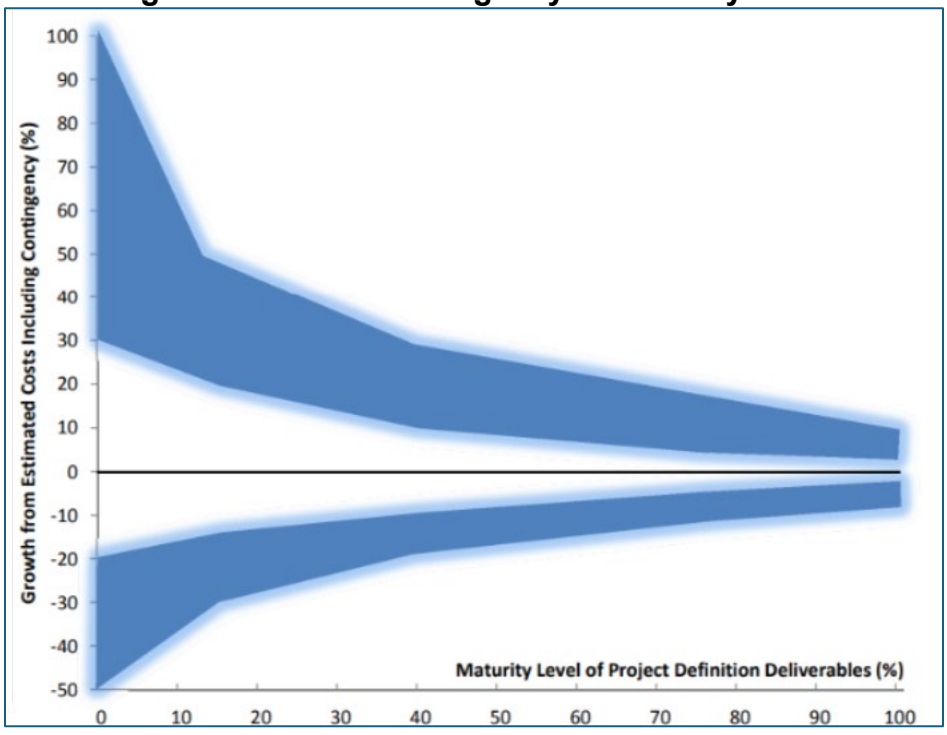

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Table 1 – Monte Carlo Simulation Results for Pipeline Scope

USD Simulation Results		Accuracy% from Mean	Results Including Event-based Risks Probability Weighted	All Risks
Unadjusted Cost	$ 96,575,385			
Minimum Cost	$ 82,861,197	-30.48%	$ 82,861,197	$ 82,861,197
P10 Cost	**$ 97,335,904**	**-18.33%**	**$ 97,335,904**	**$ 97,335,904**
Adjusted Cost	**$ 119,184,716**		**$ 119,184,716**	**$ 119,184,716**
Selected P-Value	85%			
P90 Cost	**$ 121,767,713**	**2.17%**	**$ 121,767,713**	**$ 121,767,713**
Maximum Cost	$ 170,110,103	42.73%	$ 170,110,103	$ 170,110,103
Unallocated Provision	$ 22,609,331			
Unallocated Provision -- %UC	**23.41%**			
Number of Iterations	10,000			

Figure 2 – Monte Carlo Simulation S-Curve (Pipelines)

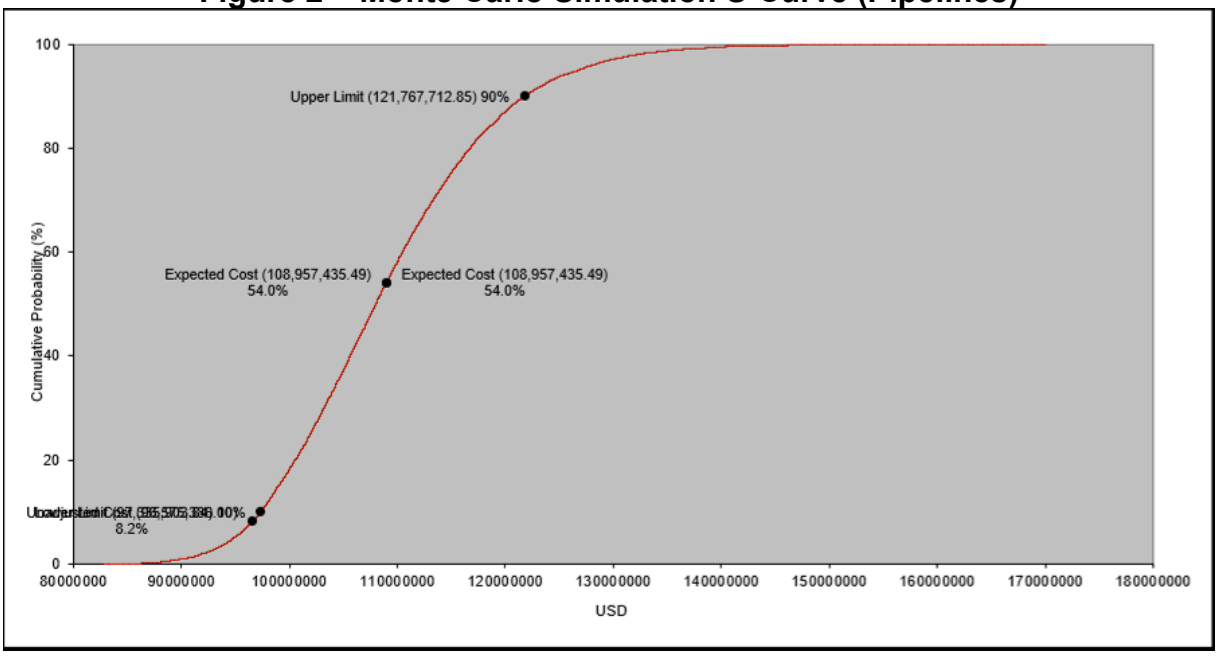

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Figure 3 – Monte Carlo Simulation Probability Table (Pipelines)

USD		Results Including Event-based Risks	
Probability	Value	Probability Weighted	All Risks
Minimum	82,861,196.92	82861196.92	82861196.92
5%	94,871,054.02	94871054.02	94871054.02
10%	97,335,903.84	97335903.84	97335903.84
15%	99,012,321.57	99012321.57	99012321.57
20%	100,526,792.46	100526792.46	100526792.46
25%	101,941,913.23	101941913.23	101941913.23
30%	103,189,807.22	103189807.22	103189807.22
35%	104,413,707.03	104413707.03	104413707.03
40%	105,621,487.99	105621487.99	105621487.99
45%	106,839,822.42	106839822.42	106839822.42
50%	107,979,721.60	107979721.60	107979721.60
55%	109,221,748.43	109221748.43	109221748.43
60%	110,458,903.85	110458903.85	110458903.85
65%	111,841,765.62	111841765.62	111841765.62
70%	113,300,493.23	113300493.23	113300493.23
75%	114,883,450.89	114883450.89	114883450.89
80%	116,739,358.79	116739358.79	116739358.79
85%	119,000,452.85	119000452.85	119000452.85
90%	121,767,712.85	121767712.85	121767712.85
95%	126,723,294.09	126723294.09	126723294.09
Maximum	170,110,103.27	170110103.27	170110103.27

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Table 2 – Monte Carlo Simulation Results for Compressor Station Scope

USD Simulation Results		Accuracy % from Mean	Results Including Event-based Risks Probability Weighted	All Risks
Unadjusted Cost	$ 57,630,743			
Minimum Cost	$ 46,820,687	-27.46%	$ 46,820,687	$ 46,820,687
P10 Cost	**$ 56,648,645**	**-12.23%**	**$ 56,648,645**	**$ 56,648,645**
Adjusted Cost	**$ 71,263,399**		**$ 71,263,399**	**$ 71,263,399**
Selected P-Value	85%			
P90 Cost	**$ 73,291,331**	**2.85%**	**$ 73,291,331**	**$ 73,291,331**
Maximum Cost	$ 107,285,780	50.55%	$ 107,285,780	$ 107,285,780
Unallocated Provision	$ 13,632,656			
Unallocated Provision -- %UC	**23.66%**			
Number of Iterations	10,000			

Figure 4 - Monte Carlo Simulation S-Curve (Compressor Stations)

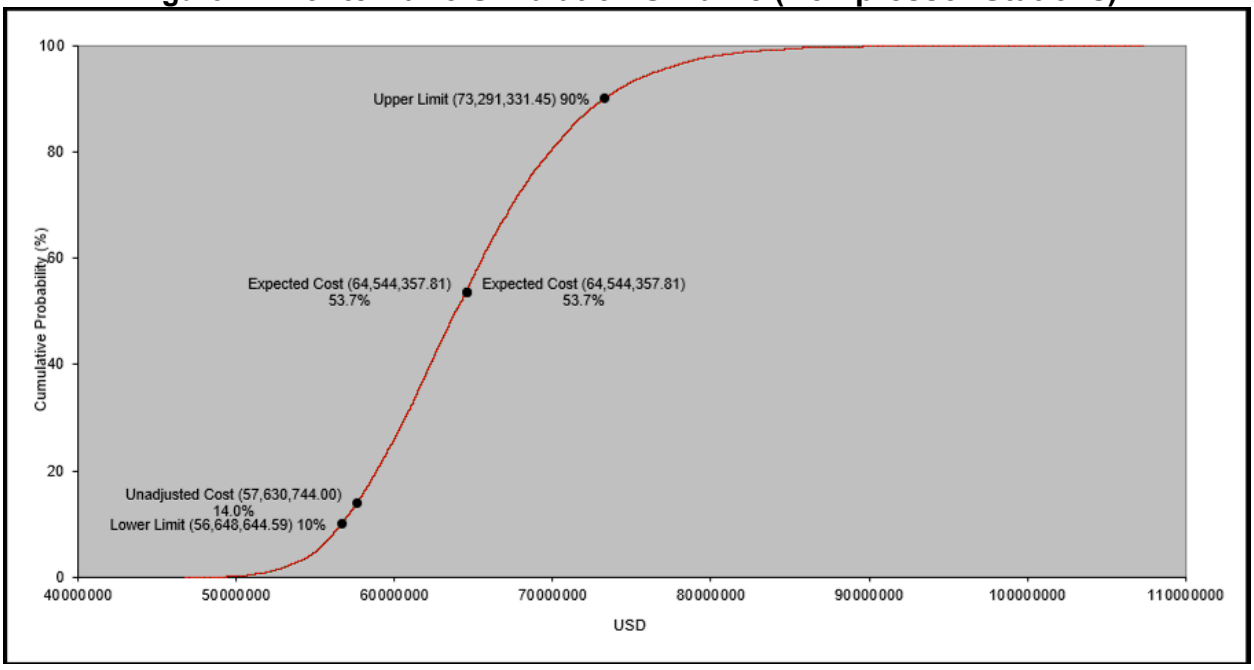

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Figure 5 - Monte Carlo Simulation Probability Table (Compressor Stations)

USD		Results Including Event-based Risks	
Probability	Value	Probability Weighted	All Risks
Minimum	46,820,686.78	46820686.78	46820686.78
5%	55,096,634.42	55096634.42	55096634.42
10%	56,648,644.59	56648644.59	56648644.59
15%	57,872,278.46	57872278.46	57872278.46
20%	58,871,976.58	58871976.58	58871976.58
25%	59,818,682.69	59818682.69	59818682.69
30%	60,675,698.24	60675698.24	60675698.24
35%	61,491,664.74	61491664.74	61491664.74
40%	62,252,511.43	62252511.43	62252511.43
45%	63,065,621.32	63065621.32	63065621.32
50%	63,861,304.79	63861304.79	63861304.79
55%	64,740,044.15	64740044.15	64740044.15
60%	65,563,252.25	65563252.25	65563252.25
65%	66,457,300.17	66457300.17	66457300.17
70%	67,413,851.26	67413851.26	67413851.26
75%	68,520,988.19	68520988.19	68520988.19
80%	69,820,700.75	69820700.75	69820700.75
85%	71,265,359.15	71265359.15	71265359.15
90%	73,291,331.45	73291331.45	73291331.45
95%	76,450,266.24	76450266.24	76450266.24
Maximum	107,285,780.30	107285780.30	107285780.30

Attachments:

- Confidential_ALP2_A2412011_DR_SCGC_03_Q04_Attach_01_ContingencyPL
- Confidential_ALP2_A2412011_DR_SCGC_03_Q04_Attach_02_ContingencyCS