SOUTHERN CALIFORNIA GAS COMPANY
Risk Assessment and Mitigation Phase
2025 Report

Chapter: SCG-Risk-2
Number: SCG-R02-CWP

High Pressure Gas System Capital Workpapers

SOUTHERN CALIFORNIA GAS COMPANY

May 15, 2025

2025 Risk Assessment & Mitigation Phase

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Risk Chapter 2CR02: SCG-RISK-2 HIGH PRESSURE GAS SYSTEM

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Summary of Risk Chapter: 2CR02 - SCG-Risk-2 High Pressure Gas System

In 2024 $ (000s) Incurred Costs												
	Adjusted Recorded					Adjusted Forecast						
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Control/Mitigation	413,097	566,203	445,298	410,660	443,733	509,446	565,835	468,545	592,289	588,196	553,873	666,356
Alternative Mitigation	0	0	0	0	0	42,162	42,162	42,162	42,162	42,162	42,162	42,162
Units	See detailed pages for Units as the unit measure can vary for each mitigation.											

Note: Totals may include rounding differences.

Risk Chapter: **SCG-Risk-2 High Pressure Gas System**

Risk ID: **2CR02**

In 2024 $ (000s) Incurred Costs

Mitigation		Unit Measure	Adjusted Recorded					Adjusted Forecast						
ID	Name		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
A125	Pipeline Rerouting to Mitigat	No feasible	0	0	0	0	0	36,114	36,114	36,114	36,114	36,114	36,114	36,114
A171	DIMP - High Pressure Pipeli	No feasible	0	0	0	0	0	6,048	6,048	6,048	6,048	6,048	6,048	6,048
C010	Pipeline Monitoring Technolo	OPM Monito	0	345	1,698	3,369	6,214	9,274	5,946	5,946	8,762	6,008	0	0
C013	Gas Transmission Safety Ru	Miles	0	0	2,593	13,625	39,914	51,060	99,820	97,618	79,189	84,255	89,975	75,471
C019	Storage HP Retrofits and Up	Storage Fiel	8,521	8,176	6,335	11,136	12,619	12,619	12,619	12,619	12,619	12,619	12,619	12,619
C104	Cathodic Protection - Capita	No feasible	15,648	16,966	9,294	8,980	9,132	16,900	22,984	22,984	22,984	22,984	22,984	22,984
C113	Leak Repair	No feasible	11,708	12,044	15,081	14,660	18,716	18,716	18,716	18,716	18,716	18,716	18,716	18,716
C118	Rupture Mitigation Valve Ins	Valves	69	58	71	52	31	41,715	46,546	15,192	40,512	40,512	40,512	40,512
C123	Regulator Station Replacem	Work orders	29	82	50	771	248	248	248	248	248	248	248	248
C125	Pipeline Relocation/Replace	No feasible	86,373	62,440	90,738	51,978	26,085	26,736	26,736	26,736	26,736	26,736	26,736	26,736
C126	Shallow/Exposed Pipe Rem	No feasible	8,657	8,389	6,873	7,781	15,735	15,735	15,735	15,735	15,735	15,735	15,735	15,735
C135	EPM Installations & Replace	Installations	337	140	338	263	196	255	255	255	255	255	255	255
C136	Compressor Stations - Capit	No feasible	22,905	40,209	22,594	25,574	24,802	26,152	26,152	26,152	26,152	26,152	26,152	26,152
C151	Measurement & Regulation	No feasible	43,542	95,852	65,211	44,846	63,363	63,363	63,363	63,363	63,363	63,363	63,363	63,363
C157	PSEP Phase 1A	Miles of Pip	13,790	56,368	31,420	11,560	11,763	7,093	2,718	249	1,064	9,094	25	0
C170	CP Install/Replace Impresse	Work orders	797	555	791	986	960	960	960	960	960	960	960	960
C171	Integrity Assessments & Rer	No feasible	121,544	153,196	108,977	136,717	133,627	194,769	175,632	119,544	136,331	142,438	108,533	207,943
C174	Service Replacements- Leal	Replacemer	597	589	2,409	720	608	608	608	608	608	608	608	608
C177	Main Replacements- Leakag	Feet - main	4,789	3,240	7,854	10,776	5,393	5,393	5,393	5,393	5,393	5,393	5,393	5,393
C185	PSEP Phase 1B	Miles of Pip	53,008	60,544	30,492	19,698	13,721	1,232	6,410	7,926	62,966	82,398	88,973	106,421
C186	PSEP Phase 2A	Miles of Pip	20,784	47,009	42,479	47,167	60,605	16,617	34,993	28,300	69,695	29,721	32,085	42,239

Note: Totals may include rounding differences.

Risk Chapter: **SCG-Risk-2 High Pressure Gas System**

Risk ID: **2CR02**

Units

Mitigation		Unit Measure	Adjusted Recorded					Adjusted Forecast						
ID	Name		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
A125	Pipeline Rerouting to Mitigat	No feasible	0	0	0	0	0	0	0	0	0	0	0	0
A171	DIMP - High Pressure Pipeli	No feasible	0	0	0	0	0	0	0	0	0	0	0	0
C010	Pipeline Monitoring Technolo	OPM Monito	0	0	1	0	16	201	230	230	242	235	0	0
C013	Gas Transmission Safety Ru	Miles	0	0	0	0	5	29	53	50	16	27	26	14
C019	Storage HP Retrofits and Up	Storage Fiel	4	4	4	4	4	4	4	4	4	4	4	4
C104	Cathodic Protection - Capita	No feasible	0	0	0	0	0	0	0	0	0	0	0	0
C113	Leak Repair	No feasible	0	0	0	0	0	0	0	0	0	0	0	0
C118	Rupture Mitigation Valve Ins	Valves	27	23	12	21	15	14	16	6	10	10	10	10
C123	Regulator Station Replacem	Work orders	3	3	3	4	3	3	3	3	3	3	3	3
C125	Pipeline Relocation/Replace	No feasible	0	0	0	0	0	0	0	0	0	0	0	0
C126	Shallow/Exposed Pipe Rem	No feasible	0	0	0	0	0	0	0	0	0	0	0	0
C135	EPM Installations & Replace	Installations	81	49	94	77	68	73	73	73	73	73	73	73
C136	Compressor Stations - Capit	No feasible	0	0	0	0	0	0	0	0	0	0	0	0
C151	Measurement & Regulation	No feasible	0	0	0	0	0	0	0	0	0	0	0	0
C157	PSEP Phase 1A	Miles of Pip	1	0	1	0	1	1	0	0	0	1	0	0
C170	CP Install/Replace Impresse	Work orders	20	13	44	62	52	52	52	52	52	52	52	52
C171	Integrity Assessments & Rer	No feasible	0	0	0	0	0	0	0	0	0	0	0	0
C174	Service Replacements- Leal	Replacemer	25	30	40	26	25	25	25	25	25	25	25	25
C177	Main Replacements- Leakag	Feet - main	8,201	1,728	3,442	7,909	324	324	324	324	324	324	324	324
C185	PSEP Phase 1B	Miles of Pip	50	28	3	0	0	0	0	0	1	3	13	49
C186	PSEP Phase 2A	Miles of Pip	0	6	0	10	0	0	0	0	13	0	0	49

Note: Totals may include rounding differences.

Supplemental Workpapers

Area:	SCG Gas Transmission
Mitigation Name:	Pipeline Rerouting - Landslide Mitigation
Proposed Budget Code:	Capital - 312
Forecast Methodology:	Zero-Based

Summary Results (in 000s)	**Forecast Methodology**	**Adjusted Recorded Dollars**					**Adjusted Forecast Dollars**						
		2020	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	Zero-Based	-	-	-	-	-	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
Labor V&S	Zero-Based	-	-	-	-	-	$400	$400	$400	$400	$400	$400	$400
Non-Labor	Zero-Based	-	-	-	-	-	$33,214	$33,214	$33,214	$33,214	$33,214	$33,214	$33,214
NSE	Zero-Based	-	-	-	-	-							
Total		**-**	**-**	**-**	**-**	**-**	**$36,114**	**$36,114**	**$36,114**	**$36,114**	**$36,114**	**$36,114**	**$36,114**

	Forecast Methodology	**Adjusted Recorded FTE**					**Adjusted Forecast FTE**						
		2020	**2021**	**2022**	**2023**	**2024**							
FTE Total	Zero-Based	0.00	0.00	0.00	0.00	0.00	19.30	19.30	19.30	19.30	19.30	19.30	19.30

PRIVILEGED AND CONFIDENTIAL/WORK PRODUCT

2025 RAMP
SCG-Risk-2-Supplemental
Workpaper

SCG DIMP - High Pressure Pipeline Assessments

Assumptions:

The DIMP High Pressure Pipeline Assessments identifies threats to high pressure pipelines; determines the risk posed by these threats; schedules prescribed assessments to evaluate thee threats; collects information about the condition of the pipelines; and takes actions to minimize applicable threat and integrity concerns to reduce the risk of a pipeline failure.
Costs are based on estimated robotic ILI costs at $5,000,00 per mile
Assumed 3 O&M digs and 2 capital digs based on SME experience
Labor and non-labor splits are assumed to be close to TIMP ILI at 16% and 84% respectively for SCG O&M and 5% and 95% for Capital
Forecast projected spend is before 16% V&S factor.

O&M Forecast

	2025	2026	2027	2028	2029	2030	2031
Miles Assessed	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Project	3	3	3	3	3	3	3
O&M Projected Spend	$ 17,000,000	$ 17,000,000	$ 17,000,000	$ 17,000,000	$ 17,000,000	$ 17,000,000	$ 17,000,000

O&M Forecast Cost Breakdown

	2025	2026	2027	2028	2029	2030	2031
Estimated robotic ILI cost per mile	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000
O&M digs per project *(assuming 3 projects for 2.5 miles with 3 digs each)*	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000
Projects	3	3	3	3	3	3	3
Forecasted Miles	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Projected Cost	$ 17,000,000	$ 17,000,000	$ 17,000,000	$ 17,000,000	$ 17,000,000	$ 17,000,000	$ 17,000,000

Labor/Non-Labor

	2025	2026	2027	2028	2029	2030	2031
Labor at 16%	$ 2,720,000	$ 2,720,000	$ 2,720,000	$ 2,720,000	$ 2,720,000	$ 2,720,000	$ 2,720,000
Non-Labor at 84%	$ 14,280,000	$ 14,280,000	$ 14,280,000	$ 14,280,000	$ 14,280,000	$ 14,280,000	$ 14,280,000
Total Projected Cost	$ 17,000,000	$ 17,000,000	$ 17,000,000	$ 17,000,000	$ 17,000,000	$ 17,000,000	$ 17,000,000

Capital Forecast Breakdown

	2025	2026	2027	2028	2029	2030	2031
O&M digs per project *(assuming 2 digs per project)*	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000
Projects	3	3	3	3	3	3	3
Projected Cost	$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 6,000,000

Labor/Non-Labor

	2025	2026	2027	2028	2029	2030	2031
Labor at 5%	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000
Non-Labor at 95%	$ 5,700,000	$ 5,700,000	$ 5,700,000	$ 5,700,000	$ 5,700,000	$ 5,700,000	$ 5,700,000
Total Projected Cost	$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 6,000,000

C010 SCG Capital - Summary

HCA Methane Total

		2025	2026	2027	2028	2029	2030	2031
Labor	Internal Labor	$ 1,234,572.00	$ 1,246,657.80	$ 1,246,657.80	$ 1,260,686.40	$ 1,252,269.24	$ -	$ -
	FTE	10.3	10.4	10.4	10.5	10.4	0.0	0.0
Non-Labor	External Resources	$ 5,044,616.00	$ 3,656,666.00	$ 3,656,666.00	$ 3,758,016.00	$ 3,697,206.00	$ -	$ -
	Materials & Expenses	$ 1,318,446.00	$ 843,800.00	$ 843,800.00	$ 878,800.00	$ 857,800.00	$ -	$ -
	Total NL	$ 6,363,062.00	$ 4,500,466.00	$ 4,500,466.00	$ 4,636,816.00	$ 4,555,006.00	$ -	$ -
Total		$ 7,597,634.00	$ 5,747,123.80	$ 5,747,123.80	$ 5,897,502.40	$ 5,807,275.24	$ -	$ -

OPM Station Total

		2025	2026	2027	2028	2029	2030	2031
Labor	Internal Labor	$ 423,524.40	$ -	$ -	$ 847,048.80	$ -	$ -	$ -
	FTE	*3.5*	*0.0*	*0.0*	*7.1*	*0.0*	*0.0*	*0.0*
Non-Labor	External Resources	$ 691,756.52	$ -	$ -	$ 1,383,513.04	$ -	$ -	$ -
	Materials & Expenses	$ 296,467.08			$ 296,467.08	$ -	$ -	$ -
	Total NL	$ 988,223.60	$ -		$ 1,679,980.12	$ -	$ -	$ -
Total		$ 1,411,748.00	$ -		$ 2,527,028.92	$ -	$ -	$ -

HCA & OPM Total

		2025	2026	2027	2028	2029	2030	2031
Labor	Internal Labor	$ 1,658,096.40	$ 1,246,657.80	$ 1,246,657.80	$ 2,107,735.20	$ 1,252,269.24	$ -	$ -
	*V&S**	$ 265,295.42	$ 199,465.25	$ 199,465.25	$ 337,237.63	$ 200,363.08	$ -	$ -
	Total Labor	$ 1,923,391.82	$ 1,446,123.05	$ 1,446,123.05	$ 2,444,972.83	$ 1,452,632.32	$ -	$ -
	FTE	*13.8*	*10.4*	*10.4*	*17.6*	*10.4*	*0.0*	*0.0*
Non-Labor	External Resources	$ 5,736,372.52	$ 3,656,666.00	$ 3,656,666.00	$ 5,141,529.04	$ 3,697,206.00	$ -	$ -
	Materials & Expenses	$ 1,614,913.08	$ 843,800.00	$ 843,800.00	$ 1,175,267.08	$ 857,800.00	$ -	$ -
	Total NL	$ 7,351,285.60	$ 4,500,466.00	$ 4,500,466.00	$ 6,316,796.12	$ 4,555,006.00	$ -	$ -
Total		$ 9,274,677.42	$ 5,946,589.05	$ 5,946,589.05	$ 8,761,768.95	$ 6,007,638.32	$ -	$ -

**V&S Assumed to be 16%*

Unit Totals	2025	2026	2027	2028	2029	2030	2031
HCA	**200**	**230**	**230**	**240**	**235**	**0**	**0**
OPM	**1**	**0**	**0**	**2**	**0**	**0**	**0**
Total	**201**	**230**	**230**	**242**	**235**	**0**	**0**

CCM - High Consequence Area (HCA) Methane Sensors

Unit Count

	2025	2026	2027	2028	2029	2030	2031
HCA Methane Sensor	200	230	230	240	235	0	0

Cost Per Unit Breakdown & Assumptions

Cost Per Month

COST TYPE	LABOR/NON-LABOR	CLASSIFICATION	DESCRIPTION	COST/Month	Cost/Year
Capital	Labor	Internal Resources	Project Manager	$ 9,000.00	**$ 108,000.00**
Capital	Labor	Internal Resources	Supply Management, Procurement, & Warehousing	$ 2,000.00	**$ 24,000.00**
Capital	Labor	Internal Resources	Construction Project Manager	$ 30,000.00	**$ 360,000.00**
Capital	Labor	Internal Resources	Technical Advisor	$ 8,000.00	**$ 96,000.00**
Capital	Labor	Internal Resources	Training Development/Delivery/Support (half of 2025 Only)	$ 5,000.00	**$ 30,000.00**
Capital	Labor	Internal Resources	Engineer 2	$ 8,000.00	**$ 96,000.00**
Capital	Labor	Internal Resources	Gas Engineering	$ 20,000.00	**$ 240,000.00**
Capital	Non-Labor	External Resources	PM I - PM Support - moved from Internal to External June 2023	$ 22,500.00	**$ 270,000.00**
Capital	Non-Labor	External Resources	Engineer II (site acquisition and engineering design reviews)	$ 16,500.00	**$ 198,000.00**
Capital	Non-Labor	External Resources	Technical Advisor II - SCG (moved from internal)	$ 7,560.00	**$ 90,720.00**
Capital	Non-Labor	External Resources	Supply Management, Procurement, & Warehousing	$ 1,000.00	**$ 12,000.00**
Capital	Non-Labor	External Resources	Logistics and Warehousing (SCG)	$ 5,000.00	**$ 60,000.00**
Capital	Non-Labor	External Resources	PM III - PM Support for AM for HCA Methane Deployment	$ 33,634.00	**$ 403,608.00**
Capital	Non-Labor	External Resources	PM I - PM Support for AM for HCA Methane Deployment	$ 24,274.00	**$ 291,288.00**
Capital	Non-Labor	Materials & Expenses	Trucks for Tech Advisors	$ 2,400.00	**$ 28,800.00**
				External Resc. Non-Labor Total	**$ 1,325,616.00**

Cost Per Sensor

COST TYPE	LABOR/NON-LABOR	CLASSIFICATION	DESCRIPTION	COST
Capital	Labor	Internal Resources	Plan, permit, test, and configure (*cost is per site*)	$ 1,142.86
Capital	Labor	Internal Resources	Transmission Standby Support	$ 260.00
Capital	Non-Labor	External Resources	Construction Inspector	$ 2,900.00
Capital	Non-Labor	External Resources	Contractor Installation (2025 ONLY)	$ 14,435.00
Capital	Non-Labor	External Resources	Contractor Installation (2026+)	$ 5,975.00
Capital	Non-Labor	External Resources	Environmental Review	$ 260.00
Capital	Non-Labor	External Resources	Survey Review	$ 1,000.00
Capital	Non-Labor	Materials & Expenses	Sensor/Enclosure/Comm Equipment (2025 ONLY)	$ 3,621.73
Capital	Non-Labor	Materials & Expenses	Sensor/Enclosure/Comm Equipment (2026+)	$ 3,500.00
Capital	Non-Labor	Materials & Expenses	Airlink License (2025 ONLY and 70 sites)	$ 70.00
			Total Unit Cost	$ 33,164.59

Cost Per Sensor

COST TYPE	LABOR/NON-LABOR	CLASSIFICATION	DESCRIPTION	COST	Cost/Year
Capital	Non-Labor	Materials & Expenses	Point Sensor / Router product for evaluation (2025 only)	$ 4,200.00	**$ 50,400.00**
Capital	Non-Labor	Materials & Expenses	Alt Sensor Product Development (2025 Lump Sum)	$ 500,000.00	**N/A**
Capital	Non-Labor	Materials & Expenses	Long-term Product & Materials for evaluation (cost per year ends in 2028)	$ 10,000.00	**N/A**

Capital Forecast

HCA Methane Total		2025	2026	2027	2028	2029	2030	2031
Labor	Internal Labor	$ 1,234,572.00	$ 1,246,657.80	$ 1,246,657.80	$ 1,260,686.40	$ 1,253,672.10	$ -	$ -
	FTE	10.3	10.4	10.4	10.5	10.4	0.0	0.0
Non-Labor	External Resources	$ 5,044,616.00	$ 3,656,666.00	$ 3,656,666.00	$ 3,758,016.00	$ 3,707,341.00	$ -	$ -
	Materials & Expenses	$ 1,318,446.00	$ 843,800.00	$ 843,800.00	$ 878,800.00	$ 861,300.00	$ -	$ -
	Total NL	$ 6,363,062.00	$ 4,500,466.00	$ 4,500,466.00	$ 4,636,816.00	$ 4,568,641.00	$ -	$ -
Total		$ 7,597,634.00	$ 5,747,123.80	$ 5,747,123.80	$ 5,897,502.40	$ 5,822,313.10	$ -	$ -

Assumptions

The CCM HCA Methane Sensor project was proposed as part of enhanced pipeline safety to enhance the monitoring and response along its high-pressure pipeline routes in high consequence areas.
The program is intended to leverage emerging technologies to monitor and manage information gathered from sensors placed along these routes. The project costs include the continual evaluation and testing of the latest point sensor technologies to support wide scale deployment throughout the system.
This information will allow Gas Control to complement existing pipeline safety efforts to identify abnormal operating conditions or emergency conditions more quickly for increased system integrity and remediation response in support of enhanced public and employee safety.
The CCM HCA Methane Sensor project will not replace any existing activities intended for pipeline safety. This includes but is not limited to leak surveys, aerial monitoring, and vehicle monitoring.
Permits will be needed for all installation sites as they will be installed in public right of way (PROW).
See 16% V&S addition on the Summary Supplemental Workpaper
Does not include any electrical or lease agreement costs for co-locations.
Additional efforts will be needed for the hardware, software, and system customization and enhancement of the Advanced Meter (SCG) network to accommodate the additional field assets.
Forecast assumes a more cost efficient and equally effective sensor begins being installed in 2026

SCG - Optical Pipeline Monitoring (OPM) Stations

Unit Count

	2025	2026	2027	2028	2029	2030	2031
OPM Station	1	0	0	2	0	0	0

Cost Per Unit Breakdown

Cost Per Station: Project Management & Field Engineering

COST TYPE	LABOR/NON-LABOR	CLASSIFICATION	DESCRIPTION	COST
Capital	Labor	Internal Resources	Project Mgmt, procedure development, engineering oversight	$ 323,000.00
			Total Unit Cost	$ 323,000.00

Cost Per Station

COST TYPE	LABOR/NON-LABOR	CLASSIFICATION	DESCRIPTION	COST
Capital	Labor	Internal Resource	Project Planning/Admin/PE/CM	$ 85,500.00
Capital	Labor	Internal Resource	Commissioning/Configuration	$ 15,024.40
Capital	Non-Labor	External Resources	Contractor Commissioning	$ 100,000.00
Capital	Non-Labor	External Resources	Warranty/Maintenance	$ 192,450.00
Capital	Non-Labor	External Resources	Engineering Design	$ 78,306.52
Capital	Non-Labor	External Resources	Documentation & Close-out	$ 20,000.00
Capital	Non-Labor	External Resources	Mechanical construction	$ 150,000.00
Capital	Non-Labor	External Resources	Electrical construction	$ 110,000.00
Capital	Non-Labor	External Resources	Inspections	$ 24,000.00
Capital	Non-Labor	External Resources	Survey	$ 7,000.00
Capital	Non-Labor	External Resources	Environmental	$ 10,000.00
Capital	Non-Labor	Materials & Expenses	Monitoring Equipment	$ 216,967.08
Capital	Non-Labor	Materials & Expenses	Enclosure/Mounting/Other Materials	$ 60,000.00
Capital	Non-Labor	Materials & Expenses	Communication Device	$ 4,500.00
Capital	Non-Labor	Materials & Expenses	Permitting/Site Acquisition	$ 15,000.00
			Total Unit Cost	$ 1,088,748.00

Capital Forecast

OPM Station Total		2025	2026	2027	2028	2029	2030	2031
Labor	Internal Labor	$ 423,524.40	$ -	$ -	$ 847,048.80			
	FTE	3.5	0.0	0.0	7.1			
Non-Labor	External Resources	$ 691,756.52	$ -	$ -	$ 1,383,513.04			
	Materials & Expenses	$ 296,467.08			$ 296,467.08			
	Total NL	$ 988,223.60	$ -		$ 1,679,980.12			
Total		$ 1,411,748.00	$ -		$ 2,527,028.92			

Assumptions

External Resources estimates are based off other sample quotes from other projects
Some costs are benchmarked off other work being done at SoCalGas
Environmental cost was benchmarked off averages from other similarly scoped projects
See 16% V&S addition on the Summary Supplemental Workpaper
One OPM station project will occur in 2025 and two will occur in 2028
Some costs will vary based on site location
Cost of the communication device is based off actuals

C013: Gas Transmission Safety Rule - MAOP Confirmation

Assumptions: **Budget Code: 367, 287**

The cost forecast for the Gas Transmission Safety Rule reconfirmation of maximum allowable operating pressure (MAOP) consists of project implementation in accordance with 49 CFR § 192.624 and PUC 958 on DOT-defined transmission pipelines through pressure testing or replacement. The project scheduling is based on a discrete number of projects driven by GTSR Part 1 to meet 50% mileage completion by July 2028 and 100% mileage completion by July 2035.

Note: Amounts are shown in 2024 Direct dollars and totals may include rounding differences. Labor is shown in Direct dollars before the 16% Vacation & Sick addition.

Table 1: Capital Forecast Totals

	2025	2026	2027	2028	2029	2030	2031
Miles Completed	28.83	81.82	131.79	148.25	176.07	202.90	216.83
Forecast Projected Spend	**$ 50,627,558**	**$ 98,900,477**	**$ 96,659,603**	**$ 78,269,758**	**$ 83,373,203**	**$ 88,817,732**	**$ 74,607,347**
Direct Labor	$ 2,702,277	$ 5,746,447	$ 5,984,064	$ 5,744,495	$ 5,509,283	$ 7,228,204	$ 5,398,851
Non-Labor	$ 47,925,281	$ 93,154,030	$ 90,675,538	$ 72,525,262	$ 77,863,920	$ 81,589,528	$ 69,208,496

Table 2: Capital Forecast Project List

Project	Project Type	Mileage	NOP	Cost_Element	2025	2026	2027	2028	2029	2030	2031
Aliso Canyon Storage	TEST	3.02	**2031**	***Direct Costs***	-	-	-	23,592	747,092	8,194,422	235,924
Aliso Canyon Storage	TEST			Direct Labor	-	-	-	1,699	53,791	589,998	16,987
Aliso Canyon Storage	TEST			Non-Labor	-	-	-	21,894	693,302	7,604,424	218,937
Goleta Storage	TEST	0.71	**2033**	***Direct Costs***	-	-	-	-	-	-	165,916
Goleta Storage	TEST			Direct Labor	-	-	-	-	-	-	11,946
Goleta Storage	TEST			Non-Labor	-	-	-	-	-	-	153,970
GTSR-L2003-SOUTH LA TO CULVER CITY TEST	TEST	11.69	**2026**	***Direct Costs***	722,045	11,471,640	75,000	-	-	-	-
GTSR-L2003-SOUTH LA TO CULVER CITY TEST	TEST			Direct Labor	-	-	-	-	-	-	-
GTSR-L2003-SOUTH LA TO CULVER CITY TEST	TEST			Non-Labor	722,045	11,471,640	75,000	-	-	-	-
GTSR-L2003-CULVER CITY TO WEST LA TEST	TEST	4.55	**2025**	***Direct Costs***	9,186,796	75,000	-	-	-	-	-
GTSR-L2003-CULVER CITY TO WEST LA TEST	TEST			Direct Labor	-	-	-	-	-	-	-
GTSR-L2003-CULVER CITY TO WEST LA TEST	TEST			Non-Labor	9,186,796	75,000	-	-	-	-	-
GTSR/PSEP-L404-P2-01	TEST	0.96	***2026***	***Direct Costs***	84,000	3,992,685	84,500	-	-	-	-
GTSR/PSEP-L404-P2-01	TEST			Direct Labor	12,000	102,500	26,000	-	-	-	-
GTSR/PSEP-L404-P2-01	TEST			Non-Labor	72,000	3,890,185	58,500	-	-	-	-
GTSR-L1003-REPL	REPL	0.15	**2034**	***Direct Costs***	-	-	-	-	-	-	13,816
GTSR-L1003-REPL	REPL			Direct Labor	-	-	-	-	-	-	995
GTSR-L1003-REPL	REPL			Non-Labor	-	-	-	-	-	-	12,821
GTSR-L1004-TEST	TEST	3.42	**2031**	***Direct Costs***	-	-	-	-	26,723	846,231	9,281,819
GTSR-L1004-TEST	TEST			Direct Labor	-	-	-	-	1,924	60,929	668,291
GTSR-L1004-TEST	TEST			Non-Labor	-	-	-	-	24,799	785,302	8,613,528
GTSR-L1011-TEST	TEST	1.85	**2029**	***Direct Costs***	-	-	38,580	819,824	4,675,409	144,675	108,506
GTSR-L1011-TEST	TEST			Direct Labor	-	-	2,778	59,027	336,629	10,417	7,812
GTSR-L1011-TEST	TEST			Non-Labor	-	-	35,802	760,797	4,338,780	134,258	100,694
GTSR-L1013-TEST	TEST	4.80	**2025**	***Direct Costs***	7,531,012	719,764	-	-	-	-	-
GTSR-L1013-TEST	TEST			Direct Labor	335,000	212,700	-	-	-	-	-
GTSR-L1013-TEST	TEST			Non-Labor	7,196,012	507,064	-	-	-	-	-
GTSR-L1014-TEST	TEST	19.30	**2026**	***Direct Costs***	3,790,636	20,392,034	10,521,334	5,000	-	-	-
GTSR-L1014-TEST	TEST			Direct Labor	480,000	1,701,324	859,662	2,000	-	-	-
GTSR-L1014-TEST	TEST			Non-Labor	3,310,636	18,690,710	9,661,672	3,000	-	-	-
GTSR-L1015-TEST	TEST	8.95	**2027**	***Direct Costs***	-	414,704	8,164,417	55,075	-	-	-
GTSR-L1015-TEST	TEST			Direct Labor	-	80,000	345,000	18,500	-	-	-
GTSR-L1015-TEST	TEST			Non-Labor	-	334,704	7,819,417	36,575	-	-	-
GTSR-L1016-REPL	REPL	0.02	**2033**	***Direct Costs***	-	-	-	-	-	-	3,507
GTSR-L1016-REPL	REPL			Direct Labor	-	-	-	-	-	-	253
GTSR-L1016-REPL	REPL			Non-Labor	-	-	-	-	-	-	3,255
GTSR-L1017-TEST	TEST	4.52	**2027**	***Direct Costs***	198,000	2,103,703	22,232,825	45,000	-	-	-
GTSR-L1017-TEST	TEST			Direct Labor	30,000	30,000	1,766,256	-	-	-	-
GTSR-L1017-TEST	TEST			Non-Labor	168,000	2,073,703	20,466,569	45,000	-	-	-
GTSR-L1018-TEST	TEST	25.03	**2027**	***Direct Costs***	5,421,730	11,497,492	19,283,626	42,000	-	-	-
GTSR-L1018-TEST	TEST			Direct Labor	269,500	344,000	142,500	14,000	-	-	-
GTSR-L1018-TEST	TEST			Non-Labor	5,152,230	11,153,492	19,141,126	28,000	-	-	-
GTSR-L1019-TEST	TEST	0.69	**2030**	***Direct Costs***	-	-	-	11,340	259,622	1,779,158	53,715
GTSR-L1019-TEST	TEST			Direct Labor	-	-	-	816	18,693	128,099	3,867
GTSR-L1019-TEST	TEST			Non-Labor	-	-	-	10,523	240,929	1,651,059	49,847
GTSR-L1020-TEST	TEST	5.73	**2025**	***Direct Costs***	7,018,693	1,709,157	-	-	-	-	-
GTSR-L1020-TEST	TEST			Direct Labor	330,000	1,156,408	-	-	-	-	-
GTSR-L1020-TEST	TEST			Non-Labor	6,688,693	552,749	-	-	-	-	-
GTSR-L1024-TEST	TEST	0.45	**2028**	***Direct Costs***	-	21,067	797,042	542,480	35,112	8,778	-
GTSR-L1024-TEST	TEST			Direct Labor	-	1,517	57,387	39,059	2,528	632	-
GTSR-L1024-TEST	TEST			Non-Labor	-	19,550	739,655	503,422	32,584	8,146	-
GTSR-L1027-TEST	TEST	0.63	**2028**	***Direct Costs***	-	18,713	363,256	1,520,998	49,535	28,895	-
GTSR-L1027-TEST	TEST			Direct Labor	-	1,347	26,154	109,512	3,567	2,080	-
GTSR-L1027-TEST	TEST			Non-Labor	-	17,366	337,102	1,411,486	45,968	26,815	-
GTSR-L1028-TEST-Section 11-Nuevo	TEST	7.20	**2025**	***Direct Costs***	909,216	46,014	-	-	-	-	-
GTSR-L1028-TEST-Section 11-Nuevo	TEST			Direct Labor	80,000	12,972	-	-	-	-	-
GTSR-L1028-TEST-Section 11-Nuevo	TEST			Non-Labor	829,216	33,042	-	-	-	-	-
GTSR-L115-REPL	REPL	0.04	**2029**	***Direct Costs***	-	-	4,232	89,934	512,889	15,871	11,903
GTSR-L115-REPL	REPL			Direct Labor	-	-	305	6,475	36,928	1,143	857
GTSR-L115-REPL	REPL			Non-Labor	-	-	3,927	83,459	475,961	14,728	11,046
GTSR-L1167-REPL	REPL	0.00	**2032**	***Direct Costs***	-	-	-	-	1,603	2,915	53,205
GTSR-L1167-REPL	REPL			Direct Labor	-	-	-	-	115	210	3,831
GTSR-L1167-REPL	REPL			Non-Labor	-	-	-	-	1,488	2,705	49,374
GTSR-L1170-TEST	TEST	0.02	**2029**	***Direct Costs***	-	-	659	21,624	24,543	1,211	404
GTSR-L1170-TEST	TEST			Direct Labor	-	-	47	1,557	1,767	87	29
GTSR-L1170-TEST	TEST			Non-Labor	-	-	612	20,067	22,776	1,124	375
GTSR-L1171-REPL	REPL	0.00	**2033**	***Direct Costs***	-	-	-	-	-	9,444	138,889
GTSR-L1171-REPL	REPL			Direct Labor	-	-	-	-	-	680	10,000
GTSR-L1171-REPL	REPL			Non-Labor	-	-	-	-	-	8,764	128,889
GTSR-L1172-TEST	TEST	0.79	**2030**	***Direct Costs***	-	-	-	23,412	454,471	1,902,927	61,973
GTSR-L1172-TEST	TEST			Direct Labor	-	-	-	1,686	32,722	137,011	4,462
GTSR-L1172-TEST	TEST			Non-Labor	-	-	-	21,726	421,749	1,765,916	57,511
GTSR-L1176-REPL	REPL	0.00	**2031**	***Direct Costs***	-	-	4,904	5,769	54,327	395,000	502,500
GTSR-L1176-REPL	REPL			Direct Labor	-	-	353	415	3,912	28,440	36,180
GTSR-L1176-REPL	REPL			Non-Labor	-	-	4,551	5,354	50,415	366,560	466,320
GTSR-L1192-REPL	REPL	0.04	**2031**	***Direct Costs***	-	-	-	2,794	55,879	330,487	303,844
GTSR-L1192-REPL	REPL			Direct Labor	-	-	-	201	4,023	23,795	21,877
GTSR-L1192-REPL	REPL			Non-Labor	-	-	-	2,593	51,856	306,692	281,967
GTSR-L1207BP1-REPL	REPL	0.01	**2033**	***Direct Costs***	-	-	-	-	-	-	9,444
GTSR-L1207BP1-REPL	REPL			Direct Labor	-	-	-	-	-	-	680
GTSR-L1207BP1-REPL	REPL			Non-Labor	-	-	-	-	-	-	8,764
GTSR-L1221-REPL	REPL	0.00	**2030**	***Direct Costs***	-	-	2,500	62,500	395,000	502,500	25,000
GTSR-L1221-REPL	REPL			Direct Labor	-	-	180	4,500	28,440	36,180	1,800
GTSR-L1221-REPL	REPL			Non-Labor	-	-	2,320	58,000	366,560	466,320	23,200
GTSR-L1229-REPL	REPL	0.00	**2030**	***Direct Costs***	-	-	-	8,056	123,611	655,000	184,167
GTSR-L1229-REPL	REPL			Direct Labor	-	-	-	580	8,900	47,160	13,260

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Table 2: Capital Forecast Project List

Project	Project Type	Mileage	NOP	Cost_Element	2025	2026	2027	2028	2029	2030	2031
GTSR-L1229-REPL	REPL			Non-Labor	-	-	-	7,476	114,711	607,840	170,907
GTSR-L127-TEST	TEST	1.25	**2029**	***Direct Costs***	-	-	52,410	2,697,295	1,036,827	97,507	16,251
GTSR-L127-TEST	TEST			Direct Labor	-	-	3,774	194,205	74,652	7,021	1,170
GTSR-L127-TEST	TEST			Non-Labor	-	-	48,637	2,503,090	962,176	90,487	15,081
GTSR-L159-TEST	TEST	0.60	**2031**	***Direct Costs***	-	-	-	12,576	204,359	1,112,971	497,536
GTSR-L159-TEST	TEST			Direct Labor	-	-	-	905	14,714	80,134	35,823
GTSR-L159-TEST	TEST			Non-Labor	-	-	-	11,670	189,645	1,032,837	461,713
GTSR-L2000-BANNING-TEST	TEST	1.71	**2029**	***Direct Costs***	-	-	358,148	1,737,893	1,047,614	-	-
GTSR-L2000-BANNING-TEST	TEST			Direct Labor	-	-	60,000	120,000	108,000	-	-
GTSR-L2000-BANNING-TEST	TEST			Non-Labor	-	-	298,148	1,617,893	939,614	-	-
GTSR-L2000-EAST-TEST	TEST	1.20	**2031**	***Direct Costs***	-	-	-	-	35,558	690,244	2,890,136
GTSR-L2000-EAST-TEST	TEST			Direct Labor	-	-	-	-	2,560	49,698	208,090
GTSR-L2000-EAST-TEST	TEST			Non-Labor	-	-	-	-	32,998	640,547	2,682,046
GTSR-L2000-MORENO VALLEY-TEST	TEST	0.31	**2029**	***Direct Costs***	-	-	-	1,780,601	10,271,124	3,392,181	-
GTSR-L2000-MORENO VALLEY-TEST	TEST			Direct Labor	-	-	-	300,000	345,116	538,580	-
GTSR-L2000-MORENO VALLEY-TEST	TEST			Non-Labor	-	-	-	1,480,601	9,926,008	2,853,601	-
GTSR-L2000-TEST	TEST	5.67	**2026**	***Direct Costs***	901,079	9,931,935	1,741,116	-	-	-	-
GTSR-L2000-TEST	TEST			Direct Labor	180,000	220,000	99,000	-	-	-	-
GTSR-L2000-TEST	TEST			Non-Labor	721,079	9,711,935	1,642,116	-	-	-	-
GTSR-L2001-WEST-TEST	TEST	22.61	**2033**	***Direct Costs***	-	-	-	224,418	286,491	286,491	1,833,012
GTSR-L2001-WEST-TEST	TEST			Direct Labor	-	-	-	16,158	20,627	20,627	131,977
GTSR-L2001-WEST-TEST	TEST			Non-Labor	-	-	-	208,260	265,864	265,864	1,701,035
GTSR-L2002-REPL	REPL	0.17	**2031**	***Direct Costs***	-	-	-	-	38,465	1,261,501	1,431,847
GTSR-L2002-REPL	REPL			Direct Labor	-	-	-	-	2,769	90,828	103,093
GTSR-L2002-REPL	REPL			Non-Labor	-	-	-	-	35,696	1,170,673	1,328,754
GTSR-L2003-TEST	TEST	10.94	**2026**	***Direct Costs***	830,056	13,859,297	95,000	-	-	-	-
GTSR-L2003-TEST	TEST			Direct Labor	75,000	162,500	35,000	-	-	-	-
GTSR-L2003-TEST	TEST			Non-Labor	755,056	13,696,797	60,000	-	-	-	-
GTSR-L2006-TEST	TEST	5.51	**2025**	***Direct Costs***	7,033,189	5,130,744	392,018	-	-	-	-
GTSR-L2006-TEST	TEST			Direct Labor	472,795	511,354	215,000	-	-	-	-
GTSR-L2006-TEST	TEST			Non-Labor	6,560,394	4,619,390	177,018	-	-	-	-
GTSR-L2007-REPL	REPL	0.05	**2034**	***Direct Costs***	-	-	-	-	-	4,491	4,210
GTSR-L2007-REPL	REPL			Direct Labor	-	-	-	-	-	323	303
GTSR-L2007-REPL	REPL			Non-Labor	-	-	-	-	-	4,168	3,907
GTSR-L2051-TEST	TEST	6.72	**2032**	***Direct Costs***	-	-	-	-	17,498	764,099	14,022,084
GTSR-L2051-TEST	TEST			Direct Labor	-	-	-	-	1,260	55,015	1,009,590
GTSR-L2051-TEST	TEST			Non-Labor	-	-	-	-	16,239	709,084	13,012,494
GTSR-L235.01-REPL	REPL	0.16	**2034**	***Direct Costs***	-	-	-	-	33,560	141,569	160,730
GTSR-L235.01-REPL	REPL			Direct Labor	-	-	-	-	2,416	10,193	11,573
GTSR-L235.01-REPL	REPL			Non-Labor	-	-	-	-	31,144	131,376	149,158
GTSR-L247-TEST	TEST	1.69	**2033**	***Direct Costs***	-	-	-	-	-	62,801	809,805
GTSR-L247-TEST	TEST			Direct Labor	-	-	-	-	-	4,522	58,306
GTSR-L247-TEST	TEST			Non-Labor	-	-	-	-	-	58,279	751,499
GTSR-L293-TEST	TEST	0.36	**2033**	***Direct Costs***	-	-	-	-	-	-	5,984
GTSR-L293-TEST	TEST			Direct Labor	-	-	-	-	-	-	431
GTSR-L293-TEST	TEST			Non-Labor	-	-	-	-	-	-	5,553
GTSR-L3000-WEST-TEST	TEST	1.28	**2030**	***Direct Costs***	-	-	164,500	2,700,833	11,036,667	2,408,000	420,000
GTSR-L3000-WEST-TEST	TEST			Direct Labor	-	-	11,844	194,460	794,640	173,376	30,240
GTSR-L3000-WEST-TEST	TEST			Non-Labor	-	-	152,656	2,506,373	10,242,027	2,234,624	389,760
GTSR-L3003-TEST	TEST	8.50	**2029**	***Direct Costs***	-	44,297	1,535,613	20,413,320	3,864,873	664,448	55,371
GTSR-L3003-TEST	TEST			Direct Labor	-	3,189	110,564	1,469,759	278,271	47,840	3,987
GTSR-L3003-TEST	TEST			Non-Labor	-	41,107	1,425,049	18,943,561	3,586,602	616,608	51,384
GTSR-L3006-REPL	REPL	0.03	**2034**	***Direct Costs***	-	-	-	-	365	8,462	26,989
GTSR-L3006-REPL	REPL			Direct Labor	-	-	-	-	26	609	1,943
GTSR-L3006-REPL	REPL			Non-Labor	-	-	-	-	339	7,853	25,046
GTSR-L3007-REPL	REPL	0.01	**2031**	***Direct Costs***	-	-	-	1,805	26,546	137,615	19,989
GTSR-L3007-REPL	REPL			Direct Labor	-	-	-	130	1,911	9,908	1,439
GTSR-L3007-REPL	REPL			Non-Labor	-	-	-	1,675	24,635	127,706	18,550
GTSR-L324-TEST	TEST	0.93	**2029**	***Direct Costs***	-	-	19,429	412,856	2,354,495	72,857	54,643
GTSR-L324-TEST	TEST			Direct Labor	-	-	1,399	29,726	169,524	5,246	3,934
GTSR-L324-TEST	TEST			Non-Labor	-	-	18,030	383,131	2,184,972	67,611	50,708
GTSR-L325-REPL	REPL	0.01	**2032**	***Direct Costs***	-	-	-	-	1,692	27,059	141,475
GTSR-L325-REPL	REPL			Direct Labor	-	-	-	-	122	1,948	10,186
GTSR-L325-REPL	REPL			Non-Labor	-	-	-	-	1,570	25,111	131,289
GTSR-L335-TEST	TEST	0.90	**2029**	***Direct Costs***	-	-	18,747	398,379	2,271,930	70,302	52,727
GTSR-L335-TEST	TEST			Direct Labor	-	-	1,350	28,683	163,579	5,062	3,796
GTSR-L335-TEST	TEST			Non-Labor	-	-	17,397	369,695	2,108,351	65,240	48,930
GTSR-L4000-P2A-Fontana Stn to Hesperia	TEST	0.45	**2024**	***Direct Costs***	178,682	-	-	-	-	-	-
GTSR-L4000-P2A-Fontana Stn to Hesperia	TEST			Direct Labor	104	-	-	-	-	-	-
GTSR-L4000-P2A-Fontana Stn to Hesperia	TEST			Non-Labor	178,578	-	-	-	-	-	-
GTSR-L4000-TEST	TEST	0.18	**2028**	***Direct Costs***	-	6,213	117,086	428,677	14,337	7,169	-
GTSR-L4000-TEST	TEST			Direct Labor	-	447	8,430	30,865	1,032	516	-
GTSR-L4000-TEST	TEST			Non-Labor	-	5,765	108,655	397,812	13,305	6,652	-
GTSR-L4002-TEST	TEST	4.44	**2026**	***Direct Costs***	349,574	3,006,287	47,000	-	-	-	-
GTSR-L4002-TEST	TEST			Direct Labor	50,500	140,000	16,000	-	-	-	-
GTSR-L4002-TEST	TEST			Non-Labor	299,074	2,866,287	31,000	-	-	-	-
GTSR-L404-TEST	TEST	10.82	**2030**	***Direct Costs***	-	-	-	178,462	4,085,831	27,999,683	1,549,798
GTSR-L404-TEST	TEST			Direct Labor	-	-	-	12,849	294,180	2,015,977	111,585
GTSR-L404-TEST	TEST			Non-Labor	-	-	-	165,612	3,791,651	25,983,706	1,438,212
GTSR-L406-TEST	TEST	7.83	**2032**	***Direct Costs***	-	-	-	-	-	40,830	1,415,426
GTSR-L406-TEST	TEST			Direct Labor	-	-	-	-	-	2,940	101,911
GTSR-L406-TEST	TEST			Non-Labor	-	-	-	-	-	37,890	1,313,516
GTSR-L407-TEST	TEST	4.96	**2028**	***Direct Costs***	-	167,977	3,165,713	11,590,385	387,638	193,819	-
GTSR-L407-TEST	TEST			Direct Labor	-	12,094	227,931	834,508	27,910	13,955	-
GTSR-L407-TEST	TEST			Non-Labor	-	155,882	2,937,781	10,755,878	359,728	179,864	-
GTSR-L408-REPL	REPL	0.16	**2032**	***Direct Costs***	-	-	-	-	-	33,643	466,418
GTSR-L408-REPL	REPL			Direct Labor	-	-	-	-	-	2,422	33,582
GTSR-L408-REPL	REPL			Non-Labor	-	-	-	-	-	31,221	432,836
GTSR-L5000-3-TEST	TEST	9.67	**2030**	***Direct Costs***	240,000	-	-	-	4,121,584	14,899,896	178,863
GTSR-L5000-3-TEST	TEST			Direct Labor	50,000	-	-	-	165,000	1,611,777	40,000
GTSR-L5000-3-TEST	TEST			Non-Labor	190,000	-	-	-	3,956,584	13,288,119	138,863
GTSR-L6900-TEST	TEST	5.00	**2029**	***Direct Costs***	-	-	108,000	4,086,000	2,781,000	180,000	45,000
GTSR-L6900-TEST	TEST			Direct Labor	-	-	7,776	294,192	200,232	12,960	3,240
GTSR-L6900-TEST	TEST			Non-Labor	-	-	100,224	3,791,808	2,580,768	167,040	41,760
GTSR-L6906-REPL	REPL	0.02	**2029**	***Direct Costs***	-	-	2,773	39,464	200,944	6,399	6,399
GTSR-L6906-REPL	REPL			Direct Labor	-	-	200	2,841	14,468	461	461
GTSR-L6906-REPL	REPL			Non-Labor	-	-	2,573	36,622	186,476	5,939	5,939
GTSR-L6916-TEST	TEST	3.49	**2031**	***Direct Costs***	-	-	-	-	87,888	1,772,906	8,594,805
GTSR-L6916-TEST	TEST			Direct Labor	-	-	-	-	6,328	127,649	618,826
GTSR-L6916-TEST	TEST			Non-Labor	-	-	-	-	81,560	1,645,257	7,975,979
GTSR-L7000-TEST	TEST	4.82	**2034**	***Direct Costs***	-	-	-	-	-	-	79,511

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Project	Project Type	Mileage	NOP	Cost_Element	2025	2026	2027	2028	2029	2030	2031
GTSR-L7000-TEST	TEST			Direct Labor	-	-	-	-	-	-	5,725
GTSR-L7000-TEST	TEST			Non-Labor	-	-	-	-	-	-	73,786
GTSR-L7200-TEST	TEST	0.58	**2032**	***Direct Costs***	-	-	-	-	-	22,021	586,052
GTSR-L7200-TEST	TEST			Direct Labor	-	-	-	-	-	1,585	42,196
GTSR-L7200-TEST	TEST			Non-Labor	-	-	-	-	-	20,435	543,856
GTSR-L765-TEST	TEST	0.17	**2032**	***Direct Costs***	-	-	-	-	-	1,305	41,318
GTSR-L765-TEST	TEST			Direct Labor	-	-	-	-	-	94	2,975
GTSR-L765-TEST	TEST			Non-Labor	-	-	-	-	-	1,211	38,343
GTSR-L767-TEST	TEST	3.46	**2034**	***Direct Costs***	-	-	-	-	-	-	27,068
GTSR-L767-TEST	TEST			Direct Labor	-	-	-	-	-	-	1,949
GTSR-L767-TEST	TEST			Non-Labor	-	-	-	-	-	-	25,119
GTSR-L800-TEST	TEST	1.50	**2029**	***Direct Costs***	-	-	31,240	663,846	3,785,877	117,149	87,862
GTSR-L800-TEST	TEST			Direct Labor	-	-	2,249	47,797	272,583	8,435	6,326
GTSR-L800-TEST	TEST			Non-Labor	-	-	28,991	616,049	3,513,294	108,715	81,536
GTSR-L8045-REPL	REPL	0.24	**2030**	***Direct Costs***	14,829	17,794	17,794	233,302	948,037	2,747,231	103,800
GTSR-L8045-REPL	REPL			Direct Labor	1,068	1,281	1,281	16,798	68,259	197,801	7,474
GTSR-L8045-REPL	REPL			Non-Labor	13,761	16,513	16,513	216,504	879,778	2,549,431	96,326
GTSR-L8107-REPL	REPL	0.03	**2031**	***Direct Costs***	-	-	-	3,083	50,101	272,857	121,976
GTSR-L8107-REPL	REPL			Direct Labor	-	-	-	222	3,607	19,646	8,782
GTSR-L8107-REPL	REPL			Non-Labor	-	-	-	2,861	46,494	253,211	113,194
GTSR-L85-SOUTH-BO1-REPL	REPL	0.00	**2029**	***Direct Costs***	-	625	23,125	198,750	496,250	18,750	12,500
GTSR-L85-SOUTH-BO1-REPL	REPL			Direct Labor	-	45	1,665	14,310	35,730	1,350	900
GTSR-L85-SOUTH-BO1-REPL	REPL			Non-Labor	-	580	21,460	184,440	460,520	17,400	11,600
GTSR-PSEP-L1005-P2-TEST	TEST	1.04	**2025**	***Direct Costs***	758,981	-	-	-	-	-	-
GTSR-PSEP-L1005-P2-TEST	TEST			Direct Labor	20,500	-	-	-	-	-	-
GTSR-PSEP-L1005-P2-TEST	TEST			Non-Labor	738,481	-	-	-	-	-	-
GTSR-PSEP-L4000-4002-P1A-Yorba Linda	TEST	0.01	**2024**	***Direct Costs***	7,190,601	96,000	-	-	-	-	-
GTSR-PSEP-L4000-4002-P1A-Yorba Linda	TEST			Direct Labor	140,000	32,000	-	-	-	-	-
GTSR-PSEP-L4000-4002-P1A-Yorba Linda	TEST			Non-Labor	7,050,601	64,000	-	-	-	-	-
GTSR-SERVICE-1 41-84-REPL	REPL	0.02	**2029**	***Direct Costs***	-	646	18,078	127,836	225,489	9,685	5,649
GTSR-SERVICE-1 41-84-REPL	REPL			Direct Labor	-	46	1,302	9,204	16,235	697	407
GTSR-SERVICE-1 41-84-REPL	REPL			Non-Labor	-	599	16,776	118,632	209,254	8,987	5,243
GTSR-SERVICE-1 44-625-REPL	REPL	0.02	**2032**	***Direct Costs***	-	-	-	-	572	16,007	113,194
GTSR-SERVICE-1 44-625-REPL	REPL			Direct Labor	-	-	-	-	41	1,153	8,150
GTSR-SERVICE-1 44-625-REPL	REPL			Non-Labor	-	-	-	-	531	14,855	105,044
GTSR-SL30-09-A-REPL	REPL	0.15	**2029**	***Direct Costs***	-	4,187	145,138	1,929,365	365,288	62,800	5,233
GTSR-SL30-09-A-REPL	REPL			Direct Labor	-	301	10,450	138,914	26,301	4,522	377
GTSR-SL30-09-A-REPL	REPL			Non-Labor	-	3,885	134,688	1,790,450	338,988	58,279	4,857
GTSR-SL30-58-REPL	REPL	0.04	**2029**	***Direct Costs***	-	-	6,237	91,726	475,507	69,070	16,511
GTSR-SL30-58-REPL	REPL			Direct Labor	-	-	449	6,604	34,237	4,973	1,189
GTSR-SL30-58-REPL	REPL			Non-Labor	-	-	5,788	85,122	441,271	64,097	15,322
GTSR-SL30-6291-REPL	REPL	0.00	**2032**	***Direct Costs***	-	-	-	-	-	7,083	104,167
GTSR-SL30-6291-REPL	REPL			Direct Labor	-	-	-	-	-	510	7,500
GTSR-SL30-6291-REPL	REPL			Non-Labor	-	-	-	-	-	6,573	96,667
GTSR-SL31-09-C-TEST	TEST	0.43	**2023**	***Direct Costs***	72,561	-	-	-	-	-	-
GTSR-SL31-09-C-TEST	TEST			Direct Labor	9,000	-	-	-	-	-	-
GTSR-SL31-09-C-TEST	TEST			Non-Labor	63,561	-	-	-	-	-	-
GTSR-SL31-09-TEST	TEST	2.70	**2024**	***Direct Costs***	(2,596,149)	-	-	-	-	-	-
GTSR-SL31-09-TEST	TEST			Direct Labor	25,000	-	-	-	-	-	-
GTSR-SL31-09-TEST	TEST			Non-Labor	(2,621,149)	-	-	-	-	-	-
GTSR-SL32-24-TEST	TEST	0.67	**2031**	***Direct Costs***	-	-	-	-	22,846	430,569	1,576,408
GTSR-SL32-24-TEST	TEST			Direct Labor	-	-	-	-	1,645	31,001	113,501
GTSR-SL32-24-TEST	TEST			Non-Labor	-	-	-	-	21,202	399,568	1,462,907
GTSR-SL32-25-TEST	TEST	1.56	**2029**	***Direct Costs***	-	-	45,977	892,499	3,737,001	121,704	70,994
GTSR-SL32-25-TEST	TEST			Direct Labor	-	-	3,310	64,260	269,064	8,763	5,112
GTSR-SL32-25-TEST	TEST			Non-Labor	-	-	42,667	828,239	3,467,937	112,942	65,883
GTSR-SL32-28-REPL	REPL	0.17	**2034**	***Direct Costs***	-	-	-	-	-	-	15,654
GTSR-SL32-28-REPL	REPL			Direct Labor	-	-	-	-	-	-	1,127
GTSR-SL32-28-REPL	REPL			Non-Labor	-	-	-	-	-	-	14,527
GTSR-SL32-3203BP1-REPL	REPL	0.00	**2031**	***Direct Costs***	-	-	-	-	9,167	138,447	568,011
GTSR-SL32-3203BP1-REPL	REPL			Direct Labor	-	-	-	-	660	9,968	40,897
GTSR-SL32-3203BP1-REPL	REPL			Non-Labor	-	-	-	-	8,507	128,479	527,115
GTSR-SL32-39-REPL	REPL	0.00	**2033**	***Direct Costs***	-	-	-	-	-	2,917	58,333
GTSR-SL32-39-REPL	REPL			Direct Labor	-	-	-	-	-	210	4,200
GTSR-SL32-39-REPL	REPL			Non-Labor	-	-	-	-	-	2,707	54,133
GTSR-SL32-55-TEST	TEST	0.61	**2029**	***Direct Costs***	-	-	20,568	387,627	1,419,188	47,464	23,732
GTSR-SL32-55-TEST	TEST			Direct Labor	-	-	1,481	27,909	102,182	3,417	1,709
GTSR-SL32-55-TEST	TEST			Non-Labor	-	-	19,087	359,717	1,317,006	44,047	22,024
GTSR-SL32-60-A-TEST	TEST	0.26	**2032**	***Direct Costs***	-	-	-	-	-	4,252	97,354
GTSR-SL32-60-A-TEST	TEST			Direct Labor	-	-	-	-	-	306	7,009
GTSR-SL32-60-A-TEST	TEST			Non-Labor	-	-	-	-	-	3,946	90,344
GTSR-SL32-61-TEST	TEST	0.82	**2029**	***Direct Costs***	-	-	6,396	202,533	2,221,471	63,958	63,958
GTSR-SL32-61-TEST	TEST			Direct Labor	-	-	460	14,582	159,946	4,605	4,605
GTSR-SL32-61-TEST	TEST			Non-Labor	-	-	5,935	187,951	2,061,525	59,353	59,353
GTSR-SL32-7074-REPL	REPL	0.01	**2031**	***Direct Costs***	-	-	-	-	2,681	41,522	191,387
GTSR-SL32-7074-REPL	REPL			Direct Labor	-	-	-	-	193	2,990	13,780
GTSR-SL32-7074-REPL	REPL			Non-Labor	-	-	-	-	2,488	38,533	177,607
GTSR-SL32-8037BP1-REPL	REPL	0.01	**2033**	***Direct Costs***	-	-	-	-	-	-	6,042
GTSR-SL32-8037BP1-REPL	REPL			Direct Labor	-	-	-	-	-	-	435
GTSR-SL32-8037BP1-REPL	REPL			Non-Labor	-	-	-	-	-	-	5,607
GTSR-SL32-90-TEST	TEST	0.00	**2027**	***Direct Costs***	10,208	334,792	380,000	18,750	6,250	-	-
GTSR-SL32-90-TEST	TEST			Direct Labor	735	24,105	27,360	1,350	450	-	-
GTSR-SL32-90-TEST	TEST			Non-Labor	9,473	310,687	352,640	17,400	5,800	-	-
GTSR-SL32-91-TEST	TEST	0.00	**2031**	***Direct Costs***	-	-	-	-	5,000	106,250	605,938
GTSR-SL32-91-TEST	TEST			Direct Labor	-	-	-	-	360	7,650	43,628
GTSR-SL32-91-TEST	TEST			Non-Labor	-	-	-	-	4,640	98,600	562,310
GTSR-SL33-120-TEST	TEST	0.31	**2032**	***Direct Costs***	-	-	-	-	1,639	56,825	755,391
GTSR-SL33-120-TEST	TEST			Direct Labor	-	-	-	-	118	4,091	54,388
GTSR-SL33-120-TEST	TEST			Non-Labor	-	-	-	-	1,521	52,734	701,003
GTSR-SL35-1179-TEST	TEST	0.44	**2030**	***Direct Costs***	-	-	-	15,181	286,110	1,047,513	35,034
GTSR-SL35-1179-TEST	TEST			Direct Labor	-	-	-	1,093	20,600	75,421	2,522
GTSR-SL35-1179-TEST	TEST			Non-Labor	-	-	-	14,088	265,510	972,092	32,511
GTSR-SL35-20-TEST	TEST	6.76	**2028**	***Direct Costs***	-	117,500	1,929,167	7,883,333	1,720,000	300,000	50,000
GTSR-SL35-20-TEST	TEST			Direct Labor	-	8,460	138,900	567,600	123,840	21,600	3,600
GTSR-SL35-20-TEST	TEST			Non-Labor	-	109,040	1,790,267	7,315,733	1,596,160	278,400	46,400
GTSR-SL35-22-TEST	TEST	0.29	**2030**	***Direct Costs***	-	-	-	6,023	127,997	729,957	39,528
GTSR-SL35-22-TEST	TEST			Direct Labor	-	-	-	434	9,216	52,557	2,846
GTSR-SL35-22-TEST	TEST			Non-Labor	-	-	-	5,590	118,781	677,400	36,682
GTSR-SL35-6520-REPL	REPL	0.00	**2032**	***Direct Costs***	-	-	-	-	-	7,083	104,167
GTSR-SL35-6520-REPL	REPL			Direct Labor	-	-	-	-	-	510	7,500
GTSR-SL35-6520-REPL	REPL			Non-Labor	-	-	-	-	-	6,573	96,667

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Project	Project Type	Mileage	NOP	Cost_Element	2025	2026	2027	2028	2029	2030	2031
GTSR-SL36-1001-IBP1-REPL	REPL	0.00	**2032**	***Direct Costs***	-	-	-	-	-	7,083	104,167
GTSR-SL36-1001-IBP1-REPL	REPL			Direct Labor	-	-	-	-	-	510	7,500
GTSR-SL36-1001-IBP1-REPL	REPL			Non-Labor	-	-	-	-	-	6,573	96,667
GTSR-SL36-1007-D-REPL	REPL	0.00	**2030**	***Direct Costs***	-	-	1,875	46,875	296,250	376,875	28,125
GTSR-SL36-1007-D-REPL	REPL			Direct Labor	-	-	135	3,375	21,330	27,135	2,025
GTSR-SL36-1007-D-REPL	REPL			Non-Labor	-	-	1,740	43,500	274,920	349,740	26,100
GTSR-SL36-1007-TEST	TEST	0.01	**2029**	***Direct Costs***	-	189	1,355	9,382	11,935	594	297
GTSR-SL36-1007-TEST	TEST			Direct Labor	-	14	98	676	859	43	21
GTSR-SL36-1007-TEST	TEST			Non-Labor	-	176	1,257	8,706	11,076	551	276
GTSR-SL36-37-REPL	REPL	0.05	**2029**	***Direct Costs***	-	-	10,094	190,235	696,495	23,294	11,647
GTSR-SL36-37-REPL	REPL			Direct Labor	-	-	727	13,697	50,148	1,677	839
GTSR-SL36-37-REPL	REPL			Non-Labor	-	-	9,367	176,538	646,347	21,617	10,808
GTSR-SL36-6267-REPL	REPL	0.02	**2029**	***Direct Costs***	-	-	3,513	49,987	254,529	8,106	8,106
GTSR-SL36-6267-REPL	REPL			Direct Labor	-	-	253	3,599	18,326	584	584
GTSR-SL36-6267-REPL	REPL			Non-Labor	-	-	3,260	46,388	236,203	7,522	7,522
GTSR-SL36-6601-I-REPL	REPL	0.02	**2029**	***Direct Costs***	-	1,877	30,504	166,131	74,266	7,039	1,760
GTSR-SL36-6601-I-REPL	REPL			Direct Labor	-	135	2,196	11,961	5,347	507	127
GTSR-SL36-6601-I-REPL	REPL			Non-Labor	-	1,742	28,308	154,169	68,919	6,533	1,633
GTSR-SL36-7-01-REPL	REPL	0.00	**2028**	***Direct Costs***	10,433	169,530	923,284	412,739	39,122	9,781	-
GTSR-SL36-7-01-REPL	REPL			Direct Labor	751	12,206	66,476	29,717	2,817	704	-
GTSR-SL36-7-01-REPL	REPL			Non-Labor	9,681	157,323	856,807	383,022	36,305	9,076	-
GTSR-SL36-8-04ST12-REPL	REPL	0.00	**2029**	***Direct Costs***	-	-	9,167	127,083	577,813	18,750	17,188
GTSR-SL36-8-04ST12-REPL	REPL			Direct Labor	-	-	660	9,150	41,603	1,350	1,238
GTSR-SL36-8-04ST12-REPL	REPL			Non-Labor	-	-	8,507	117,933	536,210	17,400	15,950
GTSR-SL36-9-06-TEST	TEST	0.47	**2030**	***Direct Costs***	-	-	-	11,931	240,670	1,166,737	37,026
GTSR-SL36-9-06-TEST	TEST			Direct Labor	-	-	-	859	17,328	84,005	2,666
GTSR-SL36-9-06-TEST	TEST			Non-Labor	-	-	-	11,072	223,342	1,082,732	34,360
GTSR-SL36-9-14-REPL	REPL	0.02	**2033**	***Direct Costs***	-	-	-	-	-	668	18,715
GTSR-SL36-9-14-REPL	REPL			Direct Labor	-	-	-	-	-	48	1,347
GTSR-SL36-9-14-REPL	REPL			Non-Labor	-	-	-	-	-	620	17,367
GTSR-SL36-9-22-REPL	REPL	0.11	**2032**	***Direct Costs***	-	-	-	-	-	16,939	249,106
GTSR-SL36-9-22-REPL	REPL			Direct Labor	-	-	-	-	-	1,220	17,936
GTSR-SL36-9-22-REPL	REPL			Non-Labor	-	-	-	-	-	15,720	231,170
GTSR-SL37-18-K1-REPL	REPL	0.00	**2030**	***Direct Costs***	-	-	6,042	92,708	491,250	138,125	18,750
GTSR-SL37-18-K1-REPL	REPL			Direct Labor	-	-	435	6,675	35,370	9,945	1,350
GTSR-SL37-18-K1-REPL	REPL			Non-Labor	-	-	5,607	86,033	455,880	128,180	17,400
GTSR-SL38-504-TEST	TEST	8.79	**2027**	***Direct Costs***	335,762	8,935,844	17,226,873	686,786	286,161	-	-
GTSR-SL38-504-TEST	TEST			Direct Labor	24,175	643,381	1,240,335	49,449	20,604	-	-
GTSR-SL38-504-TEST	TEST			Non-Labor	311,587	8,292,463	15,986,538	637,337	265,557	-	-
GTSR-SL38-506-TEST	TEST	0.28	**2032**	***Direct Costs***	-	-	-	-	2,207	69,895	766,633
GTSR-SL38-506-TEST	TEST			Direct Labor	-	-	-	-	159	5,032	55,198
GTSR-SL38-506-TEST	TEST			Non-Labor	-	-	-	-	2,048	64,862	711,435
GTSR-SL38-576-REPL	REPL	0.01	**2029**	***Direct Costs***	-	-	8,125	115,625	588,750	18,750	18,750
GTSR-SL38-576-REPL	REPL			Direct Labor	-	-	585	8,325	42,390	1,350	1,350
GTSR-SL38-576-REPL	REPL			Non-Labor	-	-	7,540	107,300	546,360	17,400	17,400
GTSR-SL38-7030-TEST	TEST	2.84	**2028**	***Direct Costs***	-	14,793	512,834	6,817,242	1,290,715	221,899	-
GTSR-SL38-7030-TEST	TEST			Direct Labor	-	1,065	36,924	490,841	92,931	15,977	-
GTSR-SL38-7030-TEST	TEST			Non-Labor	-	13,728	475,910	6,326,400	1,197,783	205,923	-
GTSR-SL41-05-TEST	TEST	2.68	**2027**	***Direct Costs***	113,993	3,738,507	4,243,333	209,375	69,792	-	-
GTSR-SL41-05-TEST	TEST			Direct Labor	8,208	269,173	305,520	15,075	5,025	-	-
GTSR-SL41-05-TEST	TEST			Non-Labor	105,786	3,469,334	3,937,813	194,300	64,767	-	-
GTSR-SL41-07-TEST	TEST	0.20	**2032**	***Direct Costs***	-	-	-	-	530	23,154	424,905
GTSR-SL41-07-TEST	TEST			Direct Labor	-	-	-	-	38	1,667	30,593
GTSR-SL41-07-TEST	TEST			Non-Labor	-	-	-	-	492	21,487	394,312
GTSR-SL41-08-REPL	REPL	0.00	**2029**	***Direct Costs***	-	-	37,273	306,477	376,875	18,750	9,375
GTSR-SL41-08-REPL	REPL			Direct Labor	-	-	2,684	22,066	27,135	1,350	675
GTSR-SL41-08-REPL	REPL			Non-Labor	-	-	34,589	284,411	349,740	17,400	8,700
GTSR-SL41-113-TEST	TEST	0.57	**2030**	***Direct Costs***	-	-	-	9,407	215,364	1,475,860	81,690
GTSR-SL41-113-TEST	TEST			Direct Labor	-	-	-	677	15,506	106,262	5,882
GTSR-SL41-113-TEST	TEST			Non-Labor	-	-	-	8,729	199,858	1,369,598	75,808
GTSR-SL41-11-TEST	TEST	2.12	**2032**	***Direct Costs***	-	-	-	-	-	62,695	1,217,023
GTSR-SL41-11-TEST	TEST			Direct Labor	-	-	-	-	-	4,514	87,626
GTSR-SL41-11-TEST	TEST			Non-Labor	-	-	-	-	-	58,181	1,129,397
GTSR-SL41-12-TEST	TEST	1.04	**2032**	***Direct Costs***	-	-	-	-	-	8,158	258,350
GTSR-SL41-12-TEST	TEST			Direct Labor	-	-	-	-	-	587	18,601
GTSR-SL41-12-TEST	TEST			Non-Labor	-	-	-	-	-	7,571	239,749
GTSR-SL41-157-A-REPL	REPL	0.00	**2028**	***Direct Costs***	1,667	46,667	330,000	582,083	25,000	14,583	-
GTSR-SL41-157-A-REPL	REPL			Direct Labor	120	3,360	23,760	41,910	1,800	1,050	-
GTSR-SL41-157-A-REPL	REPL			Non-Labor	1,547	43,307	306,240	540,173	23,200	13,533	-
GTSR-SL41-15ST3-REPL	REPL	0.00	**2030**	***Direct Costs***	-	-	1,250	35,000	247,500	436,563	29,688
GTSR-SL41-15ST3-REPL	REPL			Direct Labor	-	-	90	2,520	17,820	31,433	2,138
GTSR-SL41-15ST3-REPL	REPL			Non-Labor	-	-	1,160	32,480	229,680	405,130	27,550
GTSR-SL41-168-REPL	REPL	0.00	**2029**	***Direct Costs***	-	1,250	35,000	247,500	436,563	18,750	10,938
GTSR-SL41-168-REPL	REPL			Direct Labor	-	90	2,520	17,820	31,433	1,350	788
GTSR-SL41-168-REPL	REPL			Non-Labor	-	1,160	32,480	229,680	405,130	17,400	10,150
GTSR-SL41-17-A-TEST	TEST	1.18	**2030**	***Direct Costs***	-	-	-	45,203	1,203,008	2,319,206	92,460
GTSR-SL41-17-A-TEST	TEST			Direct Labor	-	-	-	3,255	86,617	166,983	6,657
GTSR-SL41-17-A-TEST	TEST			Non-Labor	-	-	-	41,948	1,116,391	2,152,223	85,803
GTSR-SL41-182-REPL	REPL	0.00	**2032**	***Direct Costs***	-	-	-	-	-	11,250	150,000
GTSR-SL41-182-REPL	REPL			Direct Labor	-	-	-	-	-	810	10,800
GTSR-SL41-182-REPL	REPL			Non-Labor	-	-	-	-	-	10,440	139,200
GTSR-SL41-35-1-P1A-Fontana	TEST	0.27	**2024**	***Direct Costs***	252,501	-	-	-	-	-	-
GTSR-SL41-35-1-P1A-Fontana	TEST			Direct Labor	102,964	-	-	-	-	-	-
GTSR-SL41-35-1-P1A-Fontana	TEST			Non-Labor	149,537	-	-	-	-	-	-
GTSR-SL41-55-A-TEST	TEST	1.40	**2029**	***Direct Costs***	-	-	53,385	1,420,757	2,738,991	109,196	45,498
GTSR-SL41-55-A-TEST	TEST			Direct Labor	-	-	3,844	102,294	197,207	7,862	3,276
GTSR-SL41-55-A-TEST	TEST			Non-Labor	-	-	49,541	1,318,462	2,541,784	101,334	42,222
GTSR-SL41-59-REPL	REPL	0.00	**2031**	***Direct Costs***	-	-	-	3,958	69,792	393,750	257,500
GTSR-SL41-59-REPL	REPL			Direct Labor	-	-	-	285	5,025	28,350	18,540
GTSR-SL41-59-REPL	REPL			Non-Labor	-	-	-	3,673	64,767	365,400	238,960
GTSR-SL41-6001-2-TEST	TEST	0.52	**2029**	***Direct Costs***	-	-	8,503	194,669	1,334,045	40,276	33,564
GTSR-SL41-6001-2-TEST	TEST			Direct Labor	-	-	612	14,016	96,051	2,900	2,417
GTSR-SL41-6001-2-TEST	TEST			Non-Labor	-	-	7,891	180,653	1,237,994	37,377	31,147
GTSR-SL41-6501-TEST	TEST	0.49	**2028**	***Direct Costs***	8,090	142,647	804,787	526,305	38,323	12,774	-
GTSR-SL41-6501-TEST	TEST			Direct Labor	583	10,271	57,945	37,894	2,759	920	-
GTSR-SL41-6501-TEST	TEST			Non-Labor	7,508	132,377	746,842	488,411	35,564	11,855	-
GTSR-SL41-6505-REPL	REPL	0.08	**2029**	***Direct Costs***	-	7,449	131,329	740,933	484,546	35,283	11,761
GTSR-SL41-6505-REPL	REPL			Direct Labor	-	536	9,456	53,347	34,887	2,540	847
GTSR-SL41-6505-REPL	REPL			Non-Labor	-	6,912	121,874	687,585	449,659	32,742	10,914
GTSR-SL41-66-REPL	REPL	0.00	**2029**	***Direct Costs***	-	-	9,167	127,083	577,813	18,750	17,188
GTSR-SL41-66-REPL	REPL			Direct Labor	-	-	660	9,150	41,603	1,350	1,238

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Table 2: Capital Forecast Project List

Project	Project Type	Mileage	NOP	Cost_Element	2025	2026	2027	2028	2029	2030	2031
GTSR-SL41-66-REPL	REPL			Non-Labor	-	-	8,507	117,933	536,210	17,400	15,950
GTSR-SL41-6902-1-TEST	TEST	0.20	**2033**	***Direct Costs***	-	-	-	-	-	-	5,812
GTSR-SL41-6902-1-TEST	TEST			Direct Labor	-	-	-	-	-	-	418
GTSR-SL41-6902-1-TEST	TEST			Non-Labor	-	-	-	-	-	-	5,393
GTSR-SL41-6903ST1-REPL	REPL	0.00	**2033**	***Direct Costs***	-	-	-	-	-	1,250	35,000
GTSR-SL41-6903ST1-REPL	REPL			Direct Labor	-	-	-	-	-	90	2,520
GTSR-SL41-6903ST1-REPL	REPL			Non-Labor	-	-	-	-	-	1,160	32,480
GTSR-SL43-1106-REPL	REPL	0.17	**2030**	***Direct Costs***	-	-	19,477	316,504	1,723,732	770,566	73,039
GTSR-SL43-1106-REPL	REPL			Direct Labor	-	-	1,402	22,788	124,109	55,481	5,259
GTSR-SL43-1106-REPL	REPL			Non-Labor	-	-	18,075	293,716	1,599,623	715,086	67,781
GTSR-SL43-11-REPL	REPL	0.00	**2034**	***Direct Costs***	-	-	-	-	-	-	3,958
GTSR-SL43-11-REPL	REPL			Direct Labor	-	-	-	-	-	-	285
GTSR-SL43-11-REPL	REPL			Non-Labor	-	-	-	-	-	-	3,673
GTSR-SL43-13-TEST	TEST	0.49	**2029**	***Direct Costs***	-	-	10,307	219,024	1,249,082	38,651	28,988
GTSR-SL43-13-TEST	TEST			Direct Labor	-	-	742	15,770	89,934	2,783	2,087
GTSR-SL43-13-TEST	TEST			Non-Labor	-	-	9,565	203,254	1,159,148	35,868	26,901
GTSR-SL44-135-REPL	REPL	0.00	**2034**	***Direct Costs***	-	-	-	-	-	-	5,000
GTSR-SL44-135-REPL	REPL			Direct Labor	-	-	-	-	-	-	360
GTSR-SL44-135-REPL	REPL			Non-Labor	-	-	-	-	-	-	4,640
GTSR-SL44-306/44-307-P1B	REPL	0.13	**2028**	***Direct Costs***	-	-	70,687	1,334,495	-	-	-
GTSR-SL44-306/44-307-P1B	REPL			Direct Labor	-	-	883	14,577	-	-	-
GTSR-SL44-306/44-307-P1B	REPL			Non-Labor	-	-	69,804	1,319,918	-	-	-
GTSR-SL44-735-REPL	REPL	0.01	**2028**	***Direct Costs***	-	10,208	138,542	566,875	18,750	15,625	-
GTSR-SL44-735-REPL	REPL			Direct Labor	-	735	9,975	40,815	1,350	1,125	-
GTSR-SL44-735-REPL	REPL			Non-Labor	-	9,473	128,567	526,060	17,400	14,500	-
GTSR-SL44-768-TEST	TEST	0.20	**2030**	***Direct Costs***	-	-	-	2,417	62,161	527,245	15,540
GTSR-SL44-768-TEST	TEST			Direct Labor	-	-	-	174	4,476	37,962	1,119
GTSR-SL44-768-TEST	TEST			Non-Labor	-	-	-	2,243	57,685	489,284	14,421
GTSR-SL45016LT1-TEST	TEST	0.33	**2033**	***Direct Costs***	-	-	-	-	-	-	12,659
GTSR-SL45016LT1-TEST	TEST			Direct Labor	-	-	-	-	-	-	911
GTSR-SL45016LT1-TEST	TEST			Non-Labor	-	-	-	-	-	-	11,747
GTSR-SL45-163-TEST	TEST	0.00	**2026**	***Direct Costs***	59,375	651,250	18,750	18,750	-	-	-
GTSR-SL45-163-TEST	TEST			Direct Labor	4,275	46,890	1,350	1,350	-	-	-
GTSR-SL45-163-TEST	TEST			Non-Labor	55,100	604,360	17,400	17,400	-	-	-
Honor Rancho Storage	TEST	0.00	**2033**	***Direct Costs***	-	-	-	-	-	-	8,056
Honor Rancho Storage	TEST			Direct Labor	-	-	-	-	-	-	580
Honor Rancho Storage	TEST			Non-Labor	-	-	-	-	-	-	7,476
Playa Del Rey Storage	TEST	1.25	**2031**	***Direct Costs***	-	-	-	-	121,599	2,783,983	19,078,284
Playa Del Rey Storage	TEST			Direct Labor	-	-	-	-	8,755	200,447	1,373,636
Playa Del Rey Storage	TEST			Non-Labor	-	-	-	-	112,844	2,583,536	17,704,647

Table 3: Active Mile Total	Active Miles	2025	2026	2027	2028	2029	2030	2031
TEST	215.553	28.831	52.991	49.972	16.321	27.371	26.407	13.660
REPL	1.273	-	-	-	0.138	0.448	0.422	0.265

Table 4: Miles Completed (Incremental)	2025	2026	2027	2028	2029	2030	2031
TEST	28.831	81.822	131.794	148.115	175.486	201.892	215.553
REPL	-	-	-	0.138	0.586	1.008	1.273

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Assumptions: **Budget Code: 289, 369**

The Gas Safety Enhancement Programs (GSEP) Valve Enhancement projects are planned in accordance with the Pipeline Safety: Requirement of Valve Installation and Minimum Rupture Detection Standards (Valve Rule) and California PUC 957 on DOT-defined transmission pipelines. The cost forecast comprises the installation of rupture mitigation valves (RMVs) on newly constructed or "entirely replaced" transmission pipeline segments with six inches or greater diameters. SoCalGas's forecast of RMV installations and costs are initial estimates based on historical valve project costs. Additionally, the scope of work includes valves formerly planned under the PSEP Valve Enhancement Plan. The SoCalGas Valve Rule forecast is based on the remaining valve projects previously planned for PSEP for 2025 through 2027. The 2027 forecast also includes 3 GSEP valves. 2028 through 2031 forecast assumes 10 valve projects per year and assumes similar labor and non-labor splits as historical valve projects at 8% and 92% respectively.

Note: Amounts are shown in 2024 Direct dollars and totals may include rounding differences. Labor is shown in Direct dollars before the 16% Vacation & Sick addition.

Table 1: Capital Forecast Totals

	2025	2026	2027	2028	2029	2030	2031
Number of Valves per Year	14	16	6	10	10	10	10
Forecast Projected Spend	**$ 41,305,944**	**$ 46,118,442**	**$ 15,000,000**	**$ 40,000,000**	**$ 40,000,000**	**$ 40,000,000**	**$ 40,000,000**
Direct Labor	$ 2,557,471	$ 2,671,157	$ 1,200,000	$ 3,200,000	$ 3,200,000	$ 3,200,000	$ 3,200,000
Non-Labor	$ 38,748,472	$ 43,447,285	$ 13,800,000	$ 36,800,000	$ 36,800,000	$ 36,800,000	$ 36,800,000

Table 2: Capital Forecast Project List

Project	NOP	Cost_Element	2025	2026	2027	2028	2029	2030	2031
PSEP-V-Blythe-GRC-Hayfield Stn	**2025**	**Direct Costs**	2,034,331	11,076	-	-	-	-	-
PSEP-V-Blythe-GRC-Hayfield Stn		*Direct Labor*	111,127	1,076	-	-	-	-	-
PSEP-V-Blythe-GRC-Hayfield Stn		*Non-Labor*	1,923,203	10,000	-	-	-	-	-
PSEP-V-Brea-GRC-Placentia	**2026**	**Direct Costs**	204,439	6,816,239	85,724	-	-	-	-
PSEP-V-Brea-GRC-Placentia		*Direct Labor*	9,439	413,352	1,794	-	-	-	-
PSEP-V-Brea-GRC-Placentia		*Non-Labor*	195,000	6,402,887	83,930	-	-	-	-
PSEP-V-Burbank-GRC-Valleyheart and Noble	**2027**	**Direct Costs**	275,047	2,855,654	12,593	-	-	-	-
PSEP-V-Burbank-GRC-Valleyheart and Noble		*Direct Labor*	2,153	215,790	4,593	-	-	-	-
PSEP-V-Burbank-GRC-Valleyheart and Noble		*Non-Labor*	272,894	2,639,864	8,000	-	-	-	-
PSEP-V-Cabazon-GRC-Elm St	**2025**	**Direct Costs**	621,082	-	-	-	-	-	-
PSEP-V-Cabazon-GRC-Elm St		*Direct Labor*	47,298	-	-	-	-	-	-
PSEP-V-Cabazon-GRC-Elm St		*Non-Labor*	573,784	-	-	-	-	-	-
PSEP-V-Cabazon-GRC-Millard Pass Rd	**2025**	**Direct Costs**	857,591	-	-	-	-	-	-
PSEP-V-Cabazon-GRC-Millard Pass Rd		*Direct Labor*	50,784	-	-	-	-	-	-
PSEP-V-Cabazon-GRC-Millard Pass Rd		*Non-Labor*	806,807	-	-	-	-	-	-
PSEP-V-L1004-GRC-Ortega Hill	**2026**	**Direct Costs**	130,427	2,771,836	79,482	-	-	-	-
PSEP-V-L1004-GRC-Ortega Hill		*Direct Labor*	27,423	206,820	11,482	-	-	-	-
PSEP-V-L1004-GRC-Ortega Hill		*Non-Labor*	103,004	2,565,016	68,000	-	-	-	-
PSEP-V-L1177-GRC-Northrop	**2026**	**Direct Costs**	618,118	4,550,291	40,871	-	-	-	-
PSEP-V-L1177-GRC-Northrop		*Direct Labor*	24,654	250,451	2,871	-	-	-	-
PSEP-V-L1177-GRC-Northrop		*Non-Labor*	593,464	4,299,840	38,000	-	-	-	-
PSEP-V-L2000/2001-GRC-Fault Isolation Dillon Rd	**2024**	**Direct Costs**	3,248,427	200,353	-	-	-	-	-
PSEP-V-L2000/2001-GRC-Fault Isolation Dillon Rd		*Direct Labor*	59,518	14,353	-	-	-	-	-
PSEP-V-L2000/2001-GRC-Fault Isolation Dillon Rd		*Non-Labor*	3,188,909	186,000	-	-	-	-	-
PSEP-V-L225 Forest Service-GRC-Forest Inn Rd	**2025**	**Direct Costs**	4,163,940	234,881	-	-	-	-	-
PSEP-V-L225 Forest Service-GRC-Forest Inn Rd		*Direct Labor*	296,613	35,881	-	-	-	-	-
PSEP-V-L225 Forest Service-GRC-Forest Inn Rd		*Non-Labor*	3,867,328	199,000	-	-	-	-	-
PSEP-V-L225 Forest Service-GRC-Old Ridge Route	**2025**	**Direct Costs**	4,352,178	265,210	5,741	-	-	-	-
PSEP-V-L225 Forest Service-GRC-Old Ridge Route		*Direct Labor*	335,006	45,210	5,741	-	-	-	-
PSEP-V-L225 Forest Service-GRC-Old Ridge Route		*Non-Labor*	4,017,172	220,000					
PSEP-V-L235-GRC-Black Canyon	**2027**	**Direct Costs**	58,645	937,042	589,935	-	-	-	-
PSEP-V-L235-GRC-Black Canyon		*Direct Labor*	12,445	49,014	27,342	-	-	-	-
PSEP-V-L235-GRC-Black Canyon		*Non-Labor*	46,200	888,029	562,593	-	-	-	-
PSEP-V-L235-GRC-Bristol Mtn	**2025**	**Direct Costs**	1,042,850	28,588	-	-	-	-	-
PSEP-V-L235-GRC-Bristol Mtn		*Direct Labor*	72,968	3,588	-	-	-	-	-
PSEP-V-L235-GRC-Bristol Mtn		*Non-Labor*	969,882	25,000	-	-	-	-	-
PSEP-V-L235-GRC-Crucero Rd	**2025**	**Direct Costs**	1,164,620	28,588	-	-	-	-	-
PSEP-V-L235-GRC-Crucero Rd		*Direct Labor*	85,349	3,588	-	-	-	-	-
PSEP-V-L235-GRC-Crucero Rd		*Non-Labor*	1,079,271	25,000	-	-	-	-	-
PSEP-V-L235-GRC-Fernner	**2027**	**Direct Costs**	79,062	920,763	518,587	-	-	-	-
PSEP-V-L235-GRC-Fernner		*Direct Labor*	17,612	46,502	29,494	-	-	-	-
PSEP-V-L235-GRC-Fernner		*Non-Labor*	61,450	874,261	489,092	-	-	-	-
PSEP-V-L235-GRC-Hwy 247	**2025**	**Direct Costs**	726,435	54,950	-	-	-	-	-
PSEP-V-L235-GRC-Hwy 247		*Direct Labor*	53,647	6,028	-	-	-	-	-
PSEP-V-L235-GRC-Hwy 247		*Non-Labor*	672,788	48,922	-	-	-	-	-
PSEP-V-L235-GRC-Kelso Dunes	**2026**	**Direct Costs**	51,370	1,378,096	160,390	-	-	-	-
PSEP-V-L235-GRC-Kelso Dunes		*Direct Labor*	8,570	80,133	20,596	-	-	-	-
PSEP-V-L235-GRC-Kelso Dunes		*Non-Labor*	42,800	1,297,962	139,794	-	-	-	-
PSEP-V-L3001-GRC-Burbank and Encino	**2026**	**Direct Costs**	190,139	2,582,202	132,547	-	-	-	-
PSEP-V-L3001-GRC-Burbank and Encino		*Direct Labor*	17,139	127,536	10,047	-	-	-	-
PSEP-V-L3001-GRC-Burbank and Encino		*Non-Labor*	173,000	2,454,666	122,500	-	-	-	-
PSEP-V-L406-GRC-Burbank Etiwanda	**2026**	**Direct Costs**	659,774	6,589,912	-	-	-	-	-
PSEP-V-L406-GRC-Burbank Etiwanda		*Direct Labor*	88,175	152,058	-	-	-	-	-
PSEP-V-L406-GRC-Burbank Etiwanda		*Non-Labor*	571,599	6,437,854	-	-	-	-	-
PSEP-V-L6905-15.99-0	**2025**	**Direct Costs**	865,341	30,745	-	-	-	-	-
PSEP-V-L6905-15.99-0		*Direct Labor*	29,104	5,167	-	-	-	-	-
PSEP-V-L6905-15.99-0		*Non-Labor*	836,237	25,578	-	-	-	-	-
PSEP-V-L6905-7.93	**2025**	**Direct Costs**	897,251	16,719	-	-	-	-	-
PSEP-V-L6905-7.93		*Direct Labor*	25,482	1,794	-	-	-	-	-
PSEP-V-L6905-7.93		*Non-Labor*	871,768	14,925	-	-	-	-	-
PSEP-V-L6906-GRC-Merrill Ave	**2025**	**Direct Costs**	7,146,781	58,471	-	-	-	-	-
PSEP-V-L6906-GRC-Merrill Ave		*Direct Labor*	210,848	18,371	-	-	-	-	-
PSEP-V-L6906-GRC-Merrill Ave		*Non-Labor*	6,935,933	40,100	-	-	-	-	-
PSEP-V-L6914-GRC-BEST AND WARD	**2025**	**Direct Costs**	1,259,156	13,741	-	-	-	-	-
PSEP-V-L6914-GRC-BEST AND WARD		*Direct Labor*	194,198	5,741	-	-	-	-	-
PSEP-V-L6914-GRC-BEST AND WARD		*Non-Labor*	1,064,958	8,000	-	-	-	-	-
PSEP-V-L765-GRC-SAN FERNANDO RD	**2025**	**Direct Costs**	4,247,093	85,370	-	-	-	-	-
PSEP-V-L765-GRC-SAN FERNANDO RD		*Direct Labor*	257,317	20,668	-	-	-	-	-

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Table 2: Capital Forecast Project List

Project	NOP	Cost_Element	2025	2026	2027	2028	2029	2030	2031
PSEP-V-L765-GRC-SAN FERNANDO RD		*Non-Labor*	3,989,777	64,703	-	-	-	-	-
PSEP-V-SFV Olympic-GRC-Killion St	**2025**	**Direct Costs**	3,810,359	116,723	-	-	-	-	-
PSEP-V-SFV Olympic-GRC-Killion St		*Direct Labor*	301,217	17,223	-	-	-	-	-
PSEP-V-SFV Olympic-GRC-Killion St		*Non-Labor*	3,509,143	99,500	-	-	-	-	-
PSEP-V-SFV Olympic-GRC-White Oak Ave	**2025**	**Direct Costs**	1,373,485	148,842	-	-	-	-	-
PSEP-V-SFV Olympic-GRC-White Oak Ave		*Direct Labor*	60,788	16,075	-	-	-	-	-
PSEP-V-SFV Olympic-GRC-White Oak Ave		*Non-Labor*	1,312,698	132,767	-	-	-	-	-
PSEP-V-SFV Valencia Bundle-GRC-San Jose and Yarmouth	**2026**	**Direct Costs**	208,820	2,539,086	31,073	-	-	-	-
PSEP-V-SFV Valencia Bundle-GRC-San Jose and Yarmouth		*Direct Labor*	29,820	87,191	5,741	-	-	-	-
PSEP-V-SFV Valencia Bundle-GRC-San Jose and Yarmouth		*Non-Labor*	179,000	2,451,894	25,332	-	-	-	-
PSEP-V-SFV Valencia-GRC-Balboa and Westbury	**2026**	**Direct Costs**	341,232	6,115,816	37,741	-	-	-	-
PSEP-V-SFV Valencia-GRC-Balboa and Westbury		*Direct Labor*	30,232	326,448	5,741	-	-	-	-
PSEP-V-SFV Valencia-GRC-Balboa and Westbury		*Non-Labor*	311,000	5,789,368	32,000	-	-	-	-
PSEP-V-SL33-120-P1B-Rinaldi Valjean	**2026**	**Direct Costs**	151,464	2,873,631	28,588	-	-	-	-
PSEP-V-SL33-120-P1B-Rinaldi Valjean		*Direct Labor*	44,900	284,180	3,588	-	-	-	-
PSEP-V-SL33-120-P1B-Rinaldi Valjean		*Non-Labor*	106,564	2,589,451	25,000	-	-	-	-
PSEP-V-SL33-120-P1B-Woodley	**2026**	**Direct Costs**	141,709	3,893,616	13,153	-	-	-	-
PSEP-V-SL33-120-P1B-Woodley		*Direct Labor*	27,135	236,918	2,153	-	-	-	-
PSEP-V-SL33-120-P1B-Woodley		*Non-Labor*	114,573	3,656,698	11,000	-	-	-	-
PSEP-V-SL36-1007-GRC-W BATTLES & S DEPOT	**2025**	**Direct Costs**	384,780	-	-	-	-	-	-
PSEP-V-SL36-1007-GRC-W BATTLES & S DEPOT		*Direct Labor*	26,512	-	-	-	-	-	-
PSEP-V-SL36-1007-GRC-W BATTLES & S DEPOT		*Non-Labor*	358,268	-	-	-	-	-	-

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Chapter SCG-Risk-1-Supplemental Workpaper
C157: PSEP Phase 1A - CAPITAL

Assumptions:

Budget Codes: 512, 552, 555, 557, 710, 556

The Pipeline Safety Enhancement Plan (PSEP) Phase 1A cost forecast represents replacement and pressure test projects. The forecast relies on estimating practices that follow the Association for the Advancement of Cost Engineering (AACE) industry standard. This method is most appropriate due to the unique scope, size, and complexity of each project. Project scheduling is based on a discrete number of projects driven by Commission ordered work in D.11-06-017, "address retrofitting pipeline to allow for in-line inspection tools" and to be completed as soon as practicable.

Note: Amounts are shown in 2024 Direct dollars and totals may include rounding differences. Labor is shown in Direct dollars before the 16% Vacation & Sick addition.

Table 1: Capital Forecast Totals

	2025	2026	2027	2028	2029	2030	2031
Forecast Projected Spend	**$ 7,070,488**	**$ 2,708,151**	**$ 231,762**	**$ 1,050,186**	**$ 9,038,151**	**$ 24,697**	**$ -**
Direct Labor	**$ 147,025**	**$ 61,723**	**$ 106,662**	**$ 90,186**	**$ 343,364**	**$ 4,697**	**$ -**
Non-Labor	**$ 6,923,463**	**$ 2,646,428**	**$ 125,100**	**$ 960,000**	**$ 8,694,787**	**$ 20,000**	**$ -**

Table 2: Capital Forecast Project List

Project	Project Type	NOP	Cost_Element	2025	2026	2027	2028	2029	2030	2031
GTSR/PSEP-L4000-4002-P1A-YORBA LINDA	**REPL**	**2025**	**Direct Costs**	1,542,460	9,600	-	-	-	-	-
GTSR/PSEP-L4000-4002-P1A-YORBA LINDA			*Direct Labor*	14,000	3,200	-	-	-	-	-
GTSR/PSEP-L4000-4002-P1A-YORBA LINDA			*Non-Labor*	1,528,460	6,400	-	-	-	-	-
GTSR/PSEP-SL41-35-1-P1A-FONTANA	**TEST**	**2025**	**Direct Costs**	560,330	-	-	-	-	-	-
GTSR/PSEP-SL41-35-1-P1A-FONTANA			*Direct Labor*	10,296	-	-	-	-	-	-
GTSR/PSEP-SL41-35-1-P1A-FONTANA			*Non-Labor*	550,034	-	-	-	-	-	-
PSEP-ALHAMBRA STN PIPING-P1A-REPL	**REPL**	**2024**	**Direct Costs**							
PSEP-ALHAMBRA STN PIPING-P1A-REPL			*Non-Labor*	(21,679)	-	-	-	-	-	-
PSEP-INDIAN ST-P1A-REPL	**REPL**	**2024**	**Direct Costs**	81,036	-	-	-	-	-	-
PSEP-INDIAN ST-P1A-REPL			*Direct Labor*	1,036	-	-	-	-	-	-
PSEP-INDIAN ST-P1A-REPL			*Non-Labor*	80,000	-	-	-	-	-	-
PSEP-L128-GRC-Storage	**REPL**	**2025**	**Direct Costs**	3,238,264	135,000	-	-	-	-	-
PSEP-L128-GRC-Storage			*Direct Labor*	14,143	-	-	-	-	-	-
PSEP-L128-GRC-Storage			*Non-Labor*	3,224,121	135,000	-	-	-	-	-
PSEP-L-2000 River Crossing	**REPL**	**2029**	**Direct Costs**	169,284	169,508	228,562	1,050,186	9,038,151	24,697	-
PSEP-L-2000 River Crossing			*Direct Labor*	49,284	49,508	106,062	90,186	343,364	4,697	-
PSEP-L-2000 River Crossing			*Non-Labor*	120,000	120,000	122,500	960,000	8,694,787	20,000	-
PSEP-L225-P1A	**TEST**	**2026**	**Direct Costs**	51,541	2,394,043	3,200	-	-	-	-
PSEP-L225-P1A			*Direct Labor*	6,029	9,014	600	-	-	-	-
PSEP-L225-P1A			*Non-Labor*	45,512	2,385,028	2,600	-	-	-	-
PSEP-SL31-25-P1A-POMONA	**REPL**	**2024**	**Direct Costs**	145,542	-	-	-	-	-	-
PSEP-SL31-25-P1A-POMONA			*Direct Labor*	12,000	-	-	-	-	-	-
PSEP-SL31-25-P1A-POMONA			*Non-Labor*	133,542	-	-	-	-	-	-
PSEP-SL32-09-P1A-Lincoln Ave	**REPL**	**2024**	**Direct Costs**	399,196	-	-	-	-	-	-
PSEP-SL32-09-P1A-Lincoln Ave			*Direct Labor*	12,000	-	-	-	-	-	-
PSEP-SL32-09-P1A-Lincoln Ave			*Non-Labor*	387,196	-	-	-	-	-	-
PSEP-SL33-750-P1A-Haskell Stn	**REPL**	**2024**	**Direct Costs**	28,000	-	-	-	-	-	-
PSEP-SL33-750-P1A-Haskell Stn			*Direct Labor*	1,500	-	-	-	-	-	-
PSEP-SL33-750-P1A-Haskell Stn			*Non-Labor*	26,500	-	-	-	-	-	-
PSEP-SL35-20-P1A-AB DANA POINT-SCDM	**REPL**	**2024**	**Direct Costs**	218,182	-	-	-	-	-	-
PSEP-SL35-20-P1A-AB DANA POINT-SCDM			*Direct Labor*	12,573	-	-	-	-	-	-
PSEP-SL35-20-P1A-AB DANA POINT-SCDM			*Non-Labor*	205,609	-	-	-	-	-	-
PSEP-SL36-37-P1A-REPLACEMENT	**REPL**	**2024**	**Direct Costs**	86,319	-	-	-	-	-	-
PSEP-SL36-37-P1A-REPLACEMENT			*Direct Labor*	164	-	-	-	-	-	-
PSEP-SL36-37-P1A-REPLACEMENT			*Non-Labor*	86,155	-	-	-	-	-	-
PSEP-SL44-675-LATERAL-P1A-SCDM	**REPL**	**2025**	**Direct Costs**	572,013	-	-	-	-	-	-
PSEP-SL44-675-LATERAL-P1A-SCDM			*Direct Labor*	14,000	-	-	-	-	-	-
PSEP-SL44-675-LATERAL-P1A-SCDM			*Non-Labor*	558,013	-	-	-	-	-	-

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Chapter SCG-Risk-1-Supplemental Workpaper
C185: PSEP Phase 1B - CAPITAL

Assumptions: **Budget Code: 558, 559, 560, 561, 562, 342**

The Pipeline Safety Enhancement Plan (PSEP) Phase 1B cost forecast represents replacement projects. The forecast relies on estimating practices that follow the Association for the Advancement of Cost Engineering (AACE) industry standard. This method is most appropriate due to the unique scope, size, and complexity of each project. Project scheduling is based on a discrete number of projects driven by Commission ordered work in D.11-06-017, "address retrofitting pipeline to allow for in-line inspection tools" and to be completed as soon as practicable.

Note: Amounts are shown in 2024 Direct dollars and totals may include rounding differences. Labor is shown in Direct dollars before the 16% Vacation & Sick addition.

Table 1: Capital Forecast Totals

	2025	2026	2027	2028	2029	2030	2031
Forecast Projected Spend	**$ 1,202,239**	**$ 6,304,586**	**$ 7,810,699**	**$ 62,715,518**	**$ 82,006,988**	**$ 88,676,457**	**$ 106,141,285**
Direct Labor	**$ 191,971**	**$ 663,698**	**$ 725,407**	**$ 1,581,162**	**$ 2,462,951**	**$ 1,869,071**	**$ 1,755,001**
Non-Labor	**$ 1,010,268**	**$ 5,640,888**	**$ 7,085,292**	**$ 61,134,355**	**$ 79,544,037**	**$ 86,807,386**	**$ 104,386,284**

Table 2: Capital Forecast Project List

Project	Project Type	NOP	Cost_Element	2025	2026	2027	2028	2029	2030	2031
PSEP-L1004-P1B-Sec 2 Repl	**REPL**	**2029**	**Direct Costs**	-	-	-	16,396,813	14,564,613	3,500	-
PSEP-L1004-P1B-Sec 2 Repl			*Direct Labor*	-	-	-	105,000	93,500	1,000	-
PSEP-L1004-P1B-Sec 2 Repl			*Non-Labor*	-	-	-	16,291,813	14,471,113	2,500	-
PSEP-L85 PH 1B-Section 3-Replacement	**REPL**	**2031**	**Direct Costs**	-	1,450,709	2,509,380	7,415,755	10,295,500	56,932,637	93,522,499
PSEP-L85 PH 1B-Section 3-Replacement			*Direct Labor*	-	519,025	521,556	521,556	521,556	869,430	1,332,605
PSEP-L85 PH 1B-Section 3-Replacement			*Non-Labor*	-	931,684	1,987,824	6,894,199	9,773,944	56,063,207	92,189,894
PSEP-L85 PH-Section 1:EHR to Lake Station	**REPL**	**2030**	**Direct Costs**	1,053,175	4,853,877	1,053,877	5,368,446	25,385,739	28,801,087	143,812
PSEP-L85 PH-Section 1:EHR to Lake Station			*Direct Labor*	143,971	144,673	144,673	355,942	1,787,611	920,641	143,812
PSEP-L85 PH-Section 1:EHR to Lake Station			*Non-Labor*	909,204	4,709,204	909,204	5,012,504	23,598,128	27,880,446	-
PSEP-SL36-1032-P1B-13	**REPL**	**2024**	**Direct Costs**	62,500	-	-	-	-	-	-
PSEP-SL36-1032-P1B-13			*Direct Labor*	16,500	-	-	-	-	-	-
PSEP-SL36-1032-P1B-13			*Non-Labor*	46,000	-	-	-	-	-	-
PSEP-SL36-1032-P1B-14	**REPL**	**2024**	**Direct Costs**	58,000	-	-	-	-	-	-
PSEP-SL36-1032-P1B-14			*Direct Labor*	18,000	-	-	-	-	-	-
PSEP-SL36-1032-P1B-14			*Non-Labor*	40,000	-	-	-	-	-	-
PSEP-SL36-1032-P1B-14-Z	**REPL**	**2028**	**Direct Costs**	-	-	-	1,622,085	143,749	-	-
PSEP-SL36-1032-P1B-14-Z			*Direct Labor*	-	-	-	104,000	14,000	-	-
PSEP-SL36-1032-P1B-14-Z			*Non-Labor*	-	-	-	1,518,085	129,749	-	-
PSEP-SL36-9-09N-P1B-15	**REPL**	**2024**	**Direct Costs**	28,564	-	-	-	-	-	-
PSEP-SL36-9-09N-P1B-15			*Direct Labor*	13,500	-	-	-	-	-	-
PSEP-SL36-9-09N-P1B-15			*Non-Labor*	15,064	-	-	-	-	-	-
PSEP-SL38-101-P1B-03	**REPL**	**2031**	**Direct Costs**	-	-	-	10,650	119,883	570,224	7,862,069
PSEP-SL38-101-P1B-03			*Direct Labor*	-	-	-	1,500	20,146	60,000	242,322
PSEP-SL38-101-P1B-03			*Non-Labor*	-	-	-	9,150	99,736	510,224	7,619,748
PSEP-SL38-143-P1B	**REPL**	**2031**	**Direct Costs**	-	-	-	-	72,443	260,971	4,612,905
PSEP-SL38-143-P1B			*Direct Labor*	-	-	-	-	9,681	18,000	36,262
PSEP-SL38-143-P1B			*Non-Labor*	-	-	-	-	62,762	242,971	4,576,642
PSEP-SL44-306/44-307-P1B	**REPL**	**2029**	**Direct Costs**	-	-	4,247,442	31,901,768	31,425,060	2,108,038	-
PSEP-SL44-306/44-307-P1B			*Direct Labor*	-	-	59,177	493,164	16,456	-	-
PSEP-SL44-306/44-307-P1B			*Non-Labor*	-	-	4,188,264	31,408,604	31,408,604	2,108,038	-

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Chapter SCG-Risk-1-Supplemental Workpaper
C186: PSEP Phase 2A - CAPITAL

Assumptions: **Budget Code: 563, 564, 565, 566, 567**

The Pipeline Safety Enhancement Plan (PSEP) Phase 2A cost forecast represents replacement projects and hydrotest projects. The forecast relies on estimating practices that follow the Association for the Advancement of Cost Engineering (AACE) industry standard. This method is most appropriate due to the unique scope, size, and complexity of each project. Project scheduling is based on a discrete number of projects driven by Commission ordered work in D.11-06-017, "to replace or pressure test all natural gas transmission pipeline in California that has not been tested or for which reliable records are not available" and to be completed as soon as practicable. PSEP Phase 2A forecast costs may include removal and replacement of non-piggable features, integrity anomalies, and small sections of pipe where test heads will be installed to facilitate the test.

Note: Amounts are shown in 2024 Direct dollars and totals may include rounding differences. Labor is shown in Direct dollars before the 16% Vacation & Sick addition.

Table 1: Capital Forecast Totals

	2025	2026	2027	2028	2029	2030	2031
Forecast Projected Spend	**$ 16,529,006**	**$ 34,814,870**	**$ 28,184,369**	**$ 69,616,612**	**$ 29,585,152**	**$ 32,012,111**	**$ 42,204,812**
Direct Labor	**$ 555,016**	**$ 1,126,773**	**$ 730,543**	**$ 489,841**	**$ 860,733**	**$ 456,400**	**$ 218,477**
Non-Labor	**$ 15,973,990**	**$ 33,688,097**	**$ 27,453,826**	**$ 69,126,770**	**$ 28,724,419**	**$ 31,555,712**	**$ 41,986,335**

Table 2: Capital Forecast Project List

Project	Project Type	NOP	Cost_Element	2025	2026	2027	2028	2029	2030	2031
GTSR PSEP-L4000-P2A-APPLE VLY TO LUCERNE	**TEST**	**2026**	**Direct Costs**	62,882	9,063,040	205,150	-	-	-	-
GTSR PSEP-L4000-P2A-APPLE VLY TO LUCERNE			*Direct Labor*	23,788	136,006	5,807	-	-	-	-
GTSR PSEP-L4000-P2A-APPLE VLY TO LUCERNE			*Non-Labor*	39,095	8,927,034	199,343	-	-	-	-
GTSR/PSEP-L1005-P2-TEST	**TEST**	**2024**	**Direct Costs**	114,700	-	-	-	-	-	-
GTSR/PSEP-L1005-P2-TEST			*Direct Labor*	11,250	-	-	-	-	-	-
GTSR/PSEP-L1005-P2-TEST			*Non-Labor*	103,450	-	-	-	-	-	-
GTSR/PSEP-L404-P2-01	**TEST**	**2026**	**Direct Costs**	56,520	1,324,000	44,579	-	-	-	-
GTSR/PSEP-L404-P2-01			*Direct Labor*	10,092	80,903	16,820	-	-	-	-
GTSR/PSEP-L404-P2-02			*Non-Labor*	46,428	1,243,097	27,759	-	-	-	-
GTSR-PSEP-L4000-P2A-FONTANA STN TO HESPERIA	**TEST**	**2024**	**Direct Costs**	(75,223)	-	-	-	-	-	-
GTSR-PSEP-L4000-P2A-FONTANA STN TO HESPERIA			*Direct Labor*	16,064	-	-	-	-	-	-
GTSR-PSEP-L4000-P2A-FONTANA STN TO HESPERIA			*Non-Labor*	(91,287)	-	-	-	-	-	-
PSEP-L1004-MESA STN-GRC	**REPL**	**2024**	**Direct Costs**	103,352	-	-	-	-	-	-
PSEP-L1004-MESA STN-GRC			*Direct Labor*	6,000	-	-	-	-	-	-
PSEP-L1004-MESA STN-GRC			*Non-Labor*	97,352	-	-	-	-	-	-
PSEP-L1004-P2-01	**TEST**	**2025**	**Direct Costs**	1,044,006	77,239	-	-	-	-	-
PSEP-L1004-P2-01			*Direct Labor*	45,920	9,280	-	-	-	-	-
PSEP-L1004-P2-01			*Non-Labor*	998,086	67,959	-	-	-	-	-
PSEP-L1030-GRC-HYDRO	**TEST**	**2025**	**Direct Costs**	1,555,419	-	-	-	-	-	-
PSEP-L1030-GRC-HYDRO			*Direct Labor*	42,525	-	-	-	-	-	-
PSEP-L1030-GRC-HYDRO			*Non-Labor*	1,512,894	-	-	-	-	-	-
PSEP-L133-P2-01 Derate	**REPL**	**2024**	**Direct Costs**	179,750	-	-	-	-	-	-
PSEP-L133-P2-01 Derate			*Direct Labor*	6,250	-	-	-	-	-	-
PSEP-L133-P2-01 Derate			*Non-Labor*	173,500	-	-	-	-	-	-
PSEP-L159-P2-GOLETA STORAGE PIPING REPL	**TEST**	**2028**	**Direct Costs**	4,041	-	-	419,020	26,838	-	-
PSEP-L159-P2-GOLETA STORAGE PIPING REPL			*Direct Labor*	700	-	-	17,000	3,700	-	-
PSEP-L159-P2-GOLETA STORAGE PIPING REPL			*Non-Labor*	3,341	-	-	402,020	23,138	-	-
PSEP-L-2000-C-P2	**TEST**	**2026**	**Direct Costs**	96,000	9,140,327	82,140	-	-	-	-
PSEP-L-2000-C-P2			*Direct Labor*	18,000	463,067	7,820	-	-	-	-
PSEP-L-2000-C-P2			*Non-Labor*	78,000	8,677,259	74,320	-	-	-	-
PSEP-L2000-P2-Cactus City Stn	**REPL**	**2024**	**Direct Costs**	157,280	-	-	-	-	-	-
PSEP-L2000-P2-Cactus City Stn			*Direct Labor*	26,500	-	-	-	-	-	-
PSEP-L2000-P2-Cactus City Stn			*Non-Labor*	130,780	-	-	-	-	-	-
PSEP-L2000-P2-Chino Hills	**TEST**	**2024**	**Direct Costs**	12,924	-	-	-	-	-	-
PSEP-L2000-P2-Chino Hills			*Direct Labor*	89	-	-	-	-	-	-
PSEP-L2000-P2-Chino Hills			*Non-Labor*	12,835	-	-	-	-	-	-
PSEP-L2001E-P2-Blythe to L1030 Test	**TEST**	**2024**	**Direct Costs**	22,774	-	-	-	-	-	-
PSEP-L2001E-P2-Blythe to L1030 Test			*Direct Labor*	9,226	-	-	-	-	-	-
PSEP-L2001E-P2-Blythe to L1030 Test			*Non-Labor*	13,548	-	-	-	-	-	-
PSEP-L2001W-D-BADL-P2	**TEST**	**2026**	**Direct Costs**	(23,137)	40,224	39,512	28,500	136,900	2,924,052	79,605
PSEP-L2001W-D-BADL-P2			*Non-Labor*	(23,137)	40,224	20,112	-	-	-	-
PSEP-L2001W-D-P2	**TEST**	**2024**	**Direct Costs**	766	-	19,400	28,500	136,900	2,924,052	79,605
PSEP-L2001W-D-P2			*Direct Labor*	766	-	-	-	-	-	-
PSEP-L225-P2A-North	**TEST**	**2030**	**Direct Costs**	-	-	19,400	28,500	136,900	2,924,052	79,605
PSEP-L225-P2A-North			*Direct Labor*	-	-	4,200	6,600	7,200	12,200	422
PSEP-L225-P2A-North			*Non-Labor*	-	-	15,200	21,900	129,700	2,911,852	79,183
PSEP-L225-P2A-North Coles Levee	**REPL**	**2028**	**Direct Costs**	-	-	215,300	5,250,704	8,016	-	-
PSEP-L225-P2A-North Coles Levee			*Direct Labor*	-	-	40,020	41,042	1,728	-	-
PSEP-L225-P2A-North Coles Levee			*Non-Labor*	-	-	175,280	5,209,663	6,288	-	-
PSEP-L225-P2A-South	**TEST**	**2028**	**Direct Costs**	-	18,200	37,357	2,692,973	39,129	-	-
PSEP-L225-P2A-South			*Direct Labor*	-	4,200	7,200	10,263	422	-	-
PSEP-L225-P2A-South			*Non-Labor*	-	14,000	30,157	2,682,710	38,707	-	-
PSEP-L235E-P2-01 Test	**TEST**	**2028**	**Direct Costs**	-	-	-	10,471,955	301,396	13,009	-
PSEP-L235E-P2-01 Test			*Direct Labor*	-	-	-	267,394	109,992	9,135	-
PSEP-L235E-P2-01 Test			*Non-Labor*	-	-	-	10,204,561	191,404	3,874	-
PSEP-L235E-P2-02 Test	**TEST**	**2029**	**Direct Costs**	-	-	-	-	9,361,115	69,613	-
PSEP-L235E-P2-02 Test			*Direct Labor*	-	-	-	-	213,065	59,402	-
PSEP-L235E-P2-02 Test			*Non-Labor*	-	-	-	-	9,148,050	10,211	-
PSEP-L235E-P2-Kelso REPL	**REPL**	**2024**	**Direct Costs**	561,166	-	-	-	-	-	-
PSEP-L235E-P2-Kelso REPL			*Direct Labor*	6,000	-	-	-	-	-	-
PSEP-L235E-P2-Kelso REPL			*Non-Labor*	555,166	-	-	-	-	-	-
PSEP-L235E-P2-Newberry Springs Repl	**TEST**	**2024**	**Direct Costs**	12,840	-	-	-	-	-	-
PSEP-L235E-P2-Newberry Springs Repl			*Direct Labor*	10,700	-	-	-	-	-	-
PSEP-L235E-P2-Newberry Springs Repl			*Non-Labor*	2,140	-	-	-	-	-	-
PSEP-L235W-P2-01	**REPL**	**2031**	**Direct Costs**	-	-	-	-	6,094,934	2,859,774	41,862,830
PSEP-L235W-P2-01			*Direct Labor*	-	-	-	-	246,564	168,694	213,788
PSEP-L235W-P2-01			*Non-Labor*	-	-	-	-	5,848,370	2,691,080	41,649,042
PSEP-L235W-P2-LITTLEROCK STN REPL	**REPL**	**2030**	**Direct Costs**	-	-	-	-	1,226,040	6,312,290	219,732
PSEP-L235W-P2-LITTLEROCK STN REPL			*Direct Labor*	-	-	-	-	216,191	82,663	-
PSEP-L235W-P2-LITTLEROCK STN REPL			*Non-Labor*	-	-	-	-	1,009,849	6,229,627	219,732
PSEP-L235W-P2-SECTION 3 HYDRO	**TEST**	**2024**	**Direct Costs**	10,540	-	-	-	-	-	-
PSEP-L235W-P2-SECTION 3 HYDRO			*Non-Labor*	10,540	-	-	-	-	-	-
PSEP-L257-P2-01-SCDM	**TEST**	**2025**	**Direct Costs**	311,155	-	-	-	-	-	-
PSEP-L257-P2-01-SCDM			*Direct Labor*	14,801	-	-	-	-	-	-
PSEP-L257-P2-01-SCDM			*Non-Labor*	296,354	-	-	-	-	-	-
PSEP-L3000E-P2A	**TEST**	**2030**	**Direct Costs**	71,033	-	-	-	-	8,981,027	18,505
PSEP-L3000E-P2A			*Direct Labor*	11,340	-	-	-	-	50,736	1,251
PSEP-L3000E-P2A			*Non-Labor*	59,693	-	-	-	-	8,930,291	17,253
PSEP-L3000E-P2A-ESSEX TO KELBAKER	**TEST**	**2030**	**Direct Costs**	77,208	-	-	-	-	9,822,362	24,140
PSEP-L3000E-P2A-ESSEX TO KELBAKER			*Direct Labor*	12,384	-	-	-	-	60,765	3,016
PSEP-L3000E-P2A-ESSEX TO KELBAKER			*Non-Labor*	64,824	-	-	-	-	9,761,596	21,125
PSEP-L3000E-P2A-KELBAKER TO LUDLOW	**TEST**	**2026**	**Direct Costs**	-	11,102,170	23,229	-	-	-	-
PSEP-L3000E-P2A-KELBAKER TO LUDLOW			*Direct Labor*	-	99,061	2,041	-	-	-	-
PSEP-L3000E-P2A-KELBAKER TO LUDLOW			*Non-Labor*	-	11,003,109	21,189	-	-	-	-
PSEP-L3000E-P2A-LUDLOW TO NEWBERRY	**TEST**	**2025**	**Direct Costs**	9,038,728	22,180	-	-	-	-	-
PSEP-L3000E-P2A-LUDLOW TO NEWBERRY			*Direct Labor*	104,453	2,164	-	-	-	-	-
PSEP-L3000E-P2A-LUDLOW TO NEWBERRY			*Non-Labor*	8,934,275	20,017	-	-	-	-	-
PSEP-L4000-P2A- LUCERNE VLY TO ORD MTN	**TEST**	**2027**	**Direct Costs**	48,640	-	10,674,218	49,375	-	-	-

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Table 2: Capital Forecast Project List

Project	Project Type	NOP	Cost_Element	2025	2026	2027	2028	2029	2030	2031
PSEP-L4000-P2A- LUCERNE VLY TO ORD MTN			*Direct Labor*	18,400	-	210,101	2,223	-	-	-
PSEP-L4000-P2A- LUCERNE VLY TO ORD MTN			*Non-Labor*	30,240	-	10,464,117	47,152	-	-	-
PSEP-L4000-P2A-ORD MTN TO NEWBERRY STN	**TEST**	**2027**	**Direct Costs**	48,640	-	12,864,248	121,364	-	-	-
PSEP-L4000-P2A-ORD MTN TO NEWBERRY STN			*Direct Labor*	18,400	-	143,845	10,892	-	-	-
PSEP-L4000-P2A-ORD MTN TO NEWBERRY STN			*Non-Labor*	30,240	-	12,720,403	110,472	-	-	-
PSEP-L406-GRC-SEC 11	**TEST**	**2027**	**Direct Costs**	59,782	61,217	1,709,426	-	-	-	-
PSEP-L406-GRC-SEC 11			*Direct Labor*	13,284	19,926	122,877	-	-	-	-
PSEP-L406-GRC-SEC 11			*Non-Labor*	46,498	41,291	1,586,549	-	-	-	-
PSEP-L406-GRC-SEC 12	**TEST**	**2026**	**Direct Costs**	87,206	818,949	-	-	-	-	-
PSEP-L406-GRC-SEC 12			*Direct Labor*	10,853	60,390	-	-	-	-	-
PSEP-L406-GRC-SEC 12			*Non-Labor*	76,353	758,559	-	-	-	-	-
PSEP-L406-GRC-SEC 13	**TEST**	**2026**	**Direct Costs**	113,805	1,283,017	-	-	-	-	-
PSEP-L406-GRC-SEC 13			*Direct Labor*	14,681	98,300	-	-	-	-	-
PSEP-L406-GRC-SEC 13			*Non-Labor*	99,124	1,184,717	-	-	-	-	-
PSEP-L406-GRC-SEC 14	**TEST**	**2026**	**Direct Costs**	104,124	1,027,146	5,068	-	-	-	-
PSEP-L406-GRC-SEC 14			*Direct Labor*	13,426	89,922	2,534	-	-	-	-
PSEP-L406-GRC-SEC 14			*Non-Labor*	90,698	937,224	2,534	-	-	-	-
PSEP-L406-GRC-SEC 15	**TEST**	**2027**	**Direct Costs**	8,349	48,706	1,262,450	5,568	-	-	-
PSEP-L406-GRC-SEC 15			*Direct Labor*	-	20,874	98,798	2,784	-	-	-
PSEP-L406-GRC-SEC 15			*Non-Labor*	8,349	27,832	1,163,652	2,784	-	-	-
PSEP-L406-GRC-SEC 16	**TEST**	**2027**	**Direct Costs**	58,487	58,008	984,566	-	-	-	-
PSEP-L406-GRC-SEC 16			*Direct Labor*	13,680	13,680	64,980	-	-	-	-
PSEP-L406-GRC-SEC 16			*Non-Labor*	44,807	44,328	919,586	-	-	-	-
PSEP-L41-6000-1-P2A	**REPL**	**2024**	**Direct Costs**	451,600	-	-	-	-	-	-
PSEP-L41-6000-1-P2A			*Direct Labor*	12,000	-	-	-	-	-	-
PSEP-L41-6000-1-P2A			*Non-Labor*	439,600	-	-	-	-	-	-
PSEP-L5000-P2-BLYTHE REPL	**REPL**	**2024**	**Direct Costs**	168,107	-	-	-	-	-	-
PSEP-L5000-P2-BLYTHE REPL			*Direct Labor*	15,000	-	-	-	-	-	-
PSEP-L5000-P2-BLYTHE REPL			*Non-Labor*	153,107	-	-	-	-	-	-
PSEP-SL36-9-09-North-GRC	**TEST**	**2028**	**Direct Costs**	4,250	-	37,125	1,099,000	105,250	-	-
PSEP-SL36-9-09-North-GRC			*Direct Labor*	300	-	3,500	31,000	5,000	-	-
PSEP-SL36-9-09-North-GRC			*Non-Labor*	3,950	-	33,625	1,068,000	100,250	-	-
PSEP-SL38-100-P2-01-GRC	**TEST**	**2024**	**Direct Costs**	24,243	-	-	-	-	-	-
PSEP-SL38-100-P2-01-GRC			*Direct Labor*	1,305	-	-	-	-	-	-
PSEP-SL38-100-P2-01-GRC			*Non-Labor*	22,938	-	-	-	-	-	-
PSEP-SL38-2101-P2A	**REPL**	**2024**	**Direct Costs**	170,100	-	-	-	-	-	-
PSEP-SL38-2101-P2A			*Direct Labor*	1,500	-	-	-	-	-	-
PSEP-SL38-2101-P2A			*Non-Labor*	168,600	-	-	-	-	-	-
PSEP-SL38-362-GRC	**TEST**	**2030**	**Direct Costs**	-	-	-	80,434	146,428	297,760	-
PSEP-SL38-362-GRC			*Direct Labor*	-	-	-	6,000	5,125	3,125	-
PSEP-SL38-362-GRC			*Non-Labor*	-	-	-	74,434	141,303	294,635	-
PSEP-SL38-504-GRC-LACEY BLVD	**TEST**	**2025**	**Direct Costs**	1,129,428	32,052	-	-	-	-	-
PSEP-SL38-504-GRC-LACEY BLVD			*Direct Labor*	16,240	1,200	-	-	-	-	-
PSEP-SL38-504-GRC-LACEY BLVD			*Non-Labor*	1,113,188	30,852	-	-	-	-	-
PSEP-SL38-539-P2A	**REPL**	**2028**	**Direct Costs**	224,600	698,395	-	43,604,396	-	-	-
PSEP-SL38-539-P2A			*Direct Labor*	17,600	27,800	-	-	-	-	-
PSEP-SL38-539-P2A			*Non-Labor*	207,000	670,595	-	43,604,396	-	-	-
PSEP-SL38-952-P2A	**TEST**	**2029**	**Direct Costs**	-	-	-	1,389,570	11,243,700	732,225	-
PSEP-SL38-952-P2A			*Direct Labor*	-	-	-	35,100	42,120	9,680	-
PSEP-SL38-952-P2A			*Non-Labor*	-	-	-	1,354,470	11,201,580	722,545	-
PSEP-SL41-256-GRC-ID121IE	**TEST**	**2024**	**Direct Costs**	231,180	-	-	-	-	-	-
PSEP-SL41-256-GRC-ID121IE			*Direct Labor*	7,000	-	-	-	-	-	-
PSEP-SL41-256-GRC-ID121IE			*Non-Labor*	224,180	-	-	-	-	-	-
PSEP-SL44-707-P2-01-SCDM	**REPL**	**2024**	**Direct Costs**	201,741	-	-	-	-	-	-
PSEP-SL44-707-P2-01-SCDM			*Direct Labor*	4,500	-	-	-	-	-	-
PSEP-SL44-707-P2-01-SCDM			*Non-Labor*	197,241	-	-	-	-	-	-
PSEP-SL44-729-P2-01-GRC-SCDM	**REPL**	**2028**	**Direct Costs**	-	-	-	1,456,000	97,000	-	-
PSEP-SL44-729-P2-01-GRC-SCDM			*Direct Labor*	-	-	-	21,000	4,000	-	-
PSEP-SL44-729-P2-01-GRC-SCDM			*Non-Labor*	-	-	-	1,435,000	93,000	-	-
PSEP-SL44-788-GRC-ID371OC	**REPL**	**2028**	**Direct Costs**	-	-	-	2,947,752	798,407	-	-
PSEP-SL44-788-GRC-ID371OC			*Direct Labor*	-	-	-	38,544	5,626	-	-
PSEP-SL44-788-GRC-ID371OC			*Non-Labor*	-	-	-	2,909,208	792,781	-	-

Risk Chapter: **SCG-Risk-2 High Pressure Gas System**

Risk ID: **2CR02**

Appendix A: Forecast Methodology

Mitigation ID	Mitigation Name	Labor	Non-Labor	NSE	Units
A125	Pipeline Rerouting to Mitigate Landslide Impacts	Zero-Based	Zero-Based	Zero-Based	Zero-Based
A171	DIMP - High Pressure Pipeline In-Line Inspections	Zero-Based	Zero-Based	Zero-Based	Zero-Based
C010	Pipeline Monitoring Technologies	Zero-Based	Zero-Based	Zero-Based	Zero-Based
C013	Gas Transmission Safety Rule - MAOP Reconfirmation	Zero-Based	Zero-Based	Zero-Based	Zero-Based
C019	Storage HP Retrofits and Upgrades to Purification Equipment	Base YR Rec	Base YR Rec	Base YR Rec	Base YR Rec
C104	Cathodic Protection - Capital	Base YR Rec	Base YR Rec	Base YR Rec	Base YR Rec
C113	Leak Repair	Base YR Rec	Base YR Rec	Base YR Rec	Base YR Rec
C118	Rupture Mitigation Valve Installation - Valve Rule	Zero-Based	Zero-Based	Zero-Based	Zero-Based
C123	Regulator Station Replacement	Base YR Rec	Base YR Rec	Base YR Rec	Base YR Rec
C125	Pipeline Relocation/Replacement	Base YR Rec	Base YR Rec	Base YR Rec	Base YR Rec
C126	Shallow/Exposed Pipe Remediations	Base YR Rec	Base YR Rec	Base YR Rec	Base YR Rec
C135	EPM Installations & Replacements	5-YR Average	5-YR Average	5-YR Average	5-YR Average
C136	Compressor Stations - Capital	Base YR Rec	Base YR Rec	Base YR Rec	Base YR Rec
C151	Measurement & Regulation Station Capital	Base YR Rec	Base YR Rec	Base YR Rec	Base YR Rec
C157	PSEP Phase 1A	Zero-Based	Zero-Based	Zero-Based	Zero-Based
C170	CP Install/Replace Impressed Current Systems	Base YR Rec	Base YR Rec	Base YR Rec	Base YR Rec
C171	Integrity Assessments & Remediation	Base YR Rec	Base YR Rec	Base YR Rec	Base YR Rec
C174	Service Replacements- Leakage Abnormal Op. Conditions CP Related	Base YR Rec	Base YR Rec	Base YR Rec	Base YR Rec
C177	Main Replacements- Leakage Abnormal Op. Conditions CP Related	Base YR Rec	Base YR Rec	Base YR Rec	Base YR Rec
C185	PSEP Phase 1B	Zero-Based	Zero-Based	Zero-Based	Zero-Based
C186	PSEP Phase 2A	Zero-Based	Zero-Based	Zero-Based	Zero-Based

Risk Chapter: **SCG-Risk-2 High Pressure Gas System**

Risk ID: **2CR02**

Appendix B: Unit Measure

Mitigation ID	Mitigation Name	Unit Measure
A125	Pipeline Rerouting to Mitigate Landslide Impacts	No feasible units
A171	DIMP - High Pressure Pipeline In-Line Inspections	No feasible units
C010	Pipeline Monitoring Technologies	OPM Monitoring Stations/M
C013	Gas Transmission Safety Rule - MAOP Reconfirmation	Miles
C019	Storage HP Retrofits and Upgrades to Purification Equipment	Storage Fields
C104	Cathodic Protection - Capital	No feasible units
C113	Leak Repair	No feasible units
C118	Rupture Mitigation Valve Installation - Valve Rule	Valves
C123	Regulator Station Replacement	Work orders
C125	Pipeline Relocation/Replacement	No feasible units
C126	Shallow/Exposed Pipe Remediations	No feasible units
C135	EPM Installations & Replacements	Installations or replacements
C136	Compressor Stations - Capital	No feasible units
C151	Measurement & Regulation Station Capital	No feasible units
C157	PSEP Phase 1A	Miles of Pipe
C170	CP Install/Replace Impressed Current Systems	Work orders
C171	Integrity Assessments & Remediation	No feasible units
C174	Service Replacements- Leakage Abnormal Op. Conditions CP Related	Replacements
C177	Main Replacements- Leakage Abnormal Op. Conditions CP Related	Feet - main replacements
C185	PSEP Phase 1B	Miles of Pipe
C186	PSEP Phase 2A	Miles of Pipe