Application of SAN DIEGO GAS & ELECTRIC COMPANY for authority to update its gas and electric revenue requirement and base rates effective January 1, 2028 (U 902-M)	))))

Application No.: A.26-06-XXX

Exhibit No.: (SDGE-06-CWP)

CAPITAL WORKPAPERS TO
PREPARED DIRECT TESTIMONY
OF DEVIN K. ZORNIZER
ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

JUNE 2026

2028 General Rate Case - APPLICATION

INDEX OF WORKPAPERS

Exhibit SDGE-06-CWP - GAS MAJOR PROJECTS

Overall Summary For Exhibit No. SDGE-06-CWP

Area:	**GAS MAJOR PROJECTS**
Witness:	**Devin K. Zornizer**

In 2025 $ (000)

	Adjusted-Forecast					
	2026	**2027**	**2028**	**2029**	**2030**	**2031**
A. TIMP Execution	25,873	25,859	25,798	25,837	25,848	25,864
B. Gas Transmission Safety Rule	9,627	10,929	19,602	23,176	17,300	9,229
C. Compressor Station Compliance Program	0	0	87,020	0	0	0
D. Control Center Modernization	3,412	4,631	4,566	3,709	3,719	3,734
E. HP Distribution Assessments Execution	0	0	5,148	5,165	5,170	5,177
Total	**38,912**	**41,419**	**142,134**	**57,887**	**52,037**	**44,004**

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Category: A. TIMP Execution
Workpaper: VARIOUS

Summary for Category: A. TIMP Execution

In 2025$ (000) Incurred Costs

	Adjusted-Recorded	Adjusted-Forecast					
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	681	916	902	841	880	891	907
Non-Labor	14,786	24,957	24,957	24,957	24,957	24,957	24,957
NSE	0	0	0	0	0	0	0
Total	**15,467**	**25,873**	**25,859**	**25,798**	**25,837**	**25,848**	**25,864**
FTE	3.0	4.3	4.3	4.3	4.3	4.3	4.3

Workpapers belonging to this Category:

034680 TIMP Execution

Labor	681	916	902	841	880	891	907
Non-Labor	14,786	24,957	24,957	24,957	24,957	24,957	24,957
NSE	0	0	0	0	0	0	0
Total	**15,467**	**25,873**	**25,859**	**25,798**	**25,837**	**25,848**	**25,864**
FTE	3.0	4.3	4.3	4.3	4.3	4.3	4.3
Unit Measure: No feasible units							
Units	0	0	0	0	0	0	0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
034680 - TIMP Execution

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 03468.0
Category: A. TIMP Execution
Category-Sub: 1. TIMP Execution
Workpaper Group: 034680 - TIMP Execution
Unit Measure: No feasible units

Summary of Results (Constant 2025 $ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast					
Years		**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	3-YR Average	218	818	854	885	681	916	902	841	880	891	907
Non-Labor	3-YR Average	3,032	14,385	27,628	32,457	14,786	24,957	24,957	24,957	24,957	24,957	24,957
NSE	3-YR Average	0	0	0	0	0	0	0	0	0	0	0
Total		**3,250**	**15,203**	**28,482**	**33,342**	**15,467**	**25,873**	**25,859**	**25,798**	**25,837**	**25,848**	**25,864**
FTE	3-YR Average	0.9	4.4	4.7	5.3	3.0	4.3	4.3	4.3	4.3	4.3	4.3
Units	3-YR Average	0	0	0	0	0	0	0	0	0	0	0

Business Purpose:

The TIMP is a federally-mandated program developed and implemented in compliance with 49 CFR Part 192, Subpart O and other related sections such as 49 CFR § 192.710.

Physical Description:

Remediation and replacement/installation of transmission pipeline assets as a result of TIMP assessments or other activities driven by 49 CFR Part 192, Subpart O and 49 CFR § 192.710.

Project Justification:

Remediation activities are executed in compliance with 49 CFR Part 192, Subpart O and related sections such as 49 CFR § 192.714, and are necessary to maintain the integrity of the SDG&E transmission system.

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	03468.0
Category:	A. TIMP Execution
Category-Sub:	1. TIMP Execution
Workpaper Group:	034680 - TIMP Execution
Unit Measure:	No feasible units

Forecast Methodology:

Labor - 3-YR Average

The forecast method selected for this workpaper is 3-year average. While capital activity is driven by assessment activities, there is variability from project to project. The 3-year average method is most appropriate because 2023-2025 most closely represents the activity levels and current cost drivers for TIMP after new gas safety regulations such as GTSR Part 1 and Part 2 took effect.

Non-Labor - 3-YR Average

The forecast method selected for this workpaper is 3-year average. While capital activity is driven by assessment activities, there is variability from project to project. The 3-year average method is most appropriate because 2023-2025 most closely represents the activity levels and current cost drivers for TIMP after new gas safety regulations such as GTSR Part 1 and Part 2 took effect.

NSE - 3-YR Average

Not Applicable

Units - 3-YR Average

Capital remediation is a result of TIMP assessment activity (O&M) and is therefore not unitized.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	03468.0
Category:	A. TIMP Execution
Category-Sub:	1. TIMP Execution
Workpaper Group	034680 - TIMP Execution
Unit Measure:	No feasible units

Summary of Adjustments to Forecast:

In 2025 $ (000)																		
	Base Forecast						Forecast Adjustments						Adjusted-Forecast					
Years	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	806	806	806	806	806	806	110	96	35	74	85	101	916	902	841	880	891	907
NLbr	24,957	24,957	24,957	24,957	24,957	24,957	0	0	0	0	0	0	24,957	24,957	24,957	24,957	24,957	24,957
NSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**25,763**	**25,763**	**25,763**	**25,763**	**25,763**	**25,763**	**110**	**96**	**35**	**74**	**85**	**101**	**25,873**	**25,859**	**25,798**	**25,837**	**25,848**	**25,864**
FTE	4.3	4.3	4.3	4.3	4.3	4.3	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3	4.3	4.3	4.3	4.3
Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Forecast Adjustment Details:

Year	Labor (3-YR Average)	NLbr (3-YR Average)	NSE (3-YR Average)	Total	FTE	Units (3-YR Average)
2026	110	0	0	110	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2026 Total	**110**	**0**	**0**	**110**	**0.0**	**0**
2027	96	0	0	96	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2027 Total	**96**	**0**	**0**	**96**	**0.0**	**0**

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	03468.0
Category:	A. TIMP Execution
Category-Sub:	1. TIMP Execution
Workpaper Group	034680 - TIMP Execution
Unit Measure:	No feasible units

Year	Labor (3-YR Average)	NLbr (3-YR Average)	NSE (3-YR Average)	Total	FTE	Units (3-YR Average)
2028	35	0	0	35	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2028 Total	**35**	**0**	**0**	**35**	**0.0**	**0**
2029	74	0	0	74	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2029 Total	**74**	**0**	**0**	**74**	**0.0**	**0**
2030	85	0	0	85	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2030 Total	**85**	**0**	**0**	**85**	**0.0**	**0**
2031	101	0	0	101	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2031 Total	**101**	**0**	**0**	**101**	**0.0**	**0**

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	03468.0
Category:	A. TIMP Execution
Category-Sub:	1. TIMP Execution
Workpaper Group:	034680 - TIMP Execution
Unit Measure:	No feasible units

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Recorded (Nominal $)*					
Labor	133	585	710	746	594
Non-Labor	2,134	11,772	26,156	31,091	14,786
NSE	0	0	0	0	0
Total	**2,268**	**12,357**	**26,865**	**31,837**	**15,380**
FTE	0.8	3.8	4.1	4.6	2.6
Units	0	0	0	0	0
Adjustments (Nominal $) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Recorded-Adjusted (Nominal $)					
Labor	133	585	710	746	594
Non-Labor	2,134	11,772	26,156	31,091	14,786
NSE	0	0	0	0	0
Total	**2,268**	**12,357**	**26,865**	**31,837**	**15,380**
FTE	0.8	3.8	4.1	4.6	2.6
Units	0	0	0	0	0
Vacation & Sick (Nominal $)					
Labor	20	85	99	101	87

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 03468.0
Category: A. TIMP Execution
Category-Sub: 1. TIMP Execution
Workpaper Group: 034680 - TIMP Execution
Unit Measure: No feasible units

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**20**	**85**	**99**	**101**	**87**
FTE	0.1	0.6	0.6	0.7	0.4
Units	0	0	0	0	0
Escalation to 2025$					
Labor	65	149	46	37	0
Non-Labor	898	2,612	1,473	1,366	0
NSE	0	0	0	0	0
Total	**962**	**2,761**	**1,518**	**1,404**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Recorded-Adjusted (Constant 2025$)					
Labor	218	818	854	885	681
Non-Labor	3,032	14,385	27,628	32,457	14,786
NSE	0	0	0	0	0
Total	**3,250**	**15,203**	**28,482**	**33,342**	**15,467**
FTE	0.9	4.4	4.7	5.3	3.0
Units	0	0	0	0	0

* After company-wide exclusions of Non-GRC costs
** Refer to "Detail of Adjustments to Recorded" page for line item adjustments
Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 03468.0
Category: A. TIMP Execution
Category-Sub: 1. TIMP Execution
Workpaper Group: 034680 - TIMP Execution
Unit Measure: No feasible units

Summary of Adjustments to Recorded:

In Nominal $(000)					
Years	**2021**	**2022**	**2023**	**2024**	**2025**
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0

Year	Labor	NLbr	NSE	Total	FTE	Units

Note: Totals may include rounding differences.

Beginning of Workpaper Sub Details for
Workpaper Group 034680

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 03468.0
Category: A. TIMP Execution
Category-Sub: 1. TIMP Execution
Workpaper Group: 034680 - TIMP Execution
Workpaper Detail: 034680.001 - TIMP Execution
Unit Measure: No feasible units

In-Service Date: Not Applicable

Description:

Remediation replacement retrofit and installation of transmission pipeline assets managed by the Distribution organization as a result of TIMP assessments or other activities driven by 49 CFR Part 192, Subpart O (e.g., preventive and mitigative measures) and 49 CFR § 192.710.

Forecast In 2025 $(000)

Years	2026	2027	2028	2029	2030	2031
Labor	916	902	841	880	891	907
Non-Labor	24,957	24,957	24,957	24,957	24,957	24,957
NSE	0	0	0	0	0	0
Total	**25,873**	**25,859**	**25,798**	**25,837**	**25,848**	**25,864**
FTE	4.3	4.3	4.3	4.3	4.3	4.3
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Category: B. Gas Transmission Safety Rule
Workpaper: VARIOUS

Summary for Category: B. Gas Transmission Safety Rule

In 2025$ (000) Incurred Costs

	Adjusted-Recorded	Adjusted-Forecast					
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	2,788	633	709	1,183	1,518	1,100	593
Non-Labor	41,357	8,994	10,220	18,419	21,658	16,200	8,636
NSE	0	0	0	0	0	0	0
Total	**44,145**	**9,627**	**10,929**	**19,602**	**23,176**	**17,300**	**9,229**
FTE	19.8	3.7	4.2	7.6	9.3	6.7	3.5

Workpapers belonging to this Category:

235730 GTSR Part 1 Replacements and Hydrotests

Labor	2,788	633	709	807	1,125	769	159
Non-Labor	41,357	8,994	10,220	12,474	15,713	11,245	2,271
NSE	0	0	0	0	0	0	0
Total	**44,145**	**9,627**	**10,929**	**13,281**	**16,838**	**12,014**	**2,430**
FTE	19.8	3.7	4.2	5.2	6.9	4.7	0.9
Unit Measure: Miles of Pipe							
Units	6	0	2	5	9	1	0

24575A Valve Rule

Labor	0	0	0	376	393	331	434
Non-Labor	0	0	0	5,945	5,945	4,955	6,365
NSE	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**6,321**	**6,338**	**5,286**	**6,799**
FTE	0.0	0.0	0.0	2.4	2.4	2.0	2.6
Unit Measure: Valves							
Units	0	0	0	1	1	1	1

Note: Totals may include rounding differences.

Beginning of Workpaper Group
235730 - GTSR Part 1 Replacements and Hydrotests

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 23573.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 235730 - GTSR Part 1 Replacements and Hydrotests
Unit Measure: Miles of Pipe

Summary of Results (Constant 2025 $ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast					
Years		**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	Zero-Based	0	0	80	786	2,788	633	709	807	1,125	769	159
Non-Labor	Zero-Based	0	0	2,743	11,104	41,357	8,994	10,220	12,474	15,713	11,245	2,271
NSE	Zero-Based	0	0	0	0	0	0	0	0	0	0	0
Total		**0**	**0**	**2,823**	**11,890**	**44,144**	**9,627**	**10,929**	**13,281**	**16,838**	**12,014**	**2,430**
FTE	Zero-Based	0.0	0.0	0.5	4.8	19.8	3.7	4.2	5.2	6.9	4.7	0.9
Units	Zero-Based	0	0	0	0	6	0	2	5	9	1	0

Business Purpose:

Pursuant to 49 CFR section 192.624, which was initially published in October 2019 as part of PHMSA's Pipeline Safety: Safety of Gas Transmission Pipelines: MAOP Reconfirmation, Expansion of Assessment Requirements, and Other Related Amendments Final Rule (GTSR Part 1), SDG&E is required to reconfirm, by July 2035, the Maximum Allowable Operating Pressure (MAOP) of transmission lines that meet the applicability requirements of 49 CFR section 192.624(a).

Physical Description:

These costs reflect GTSR Part 1 replacement and hydrostatic pressure testing projects scheduled to be placed in service during the forecast period. Detailed information at a project level is contained in the supplemental workpapers (Ex. SDGE-06-WP-S, Volume I).

Project Justification:

SDG&E is implementing this program in order to reconfirm MAOP in accordance with 49 CFR § 192.624.

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	23573.0
Category:	B. Gas Transmission Safety Rule
Category-Sub:	1. Gas Transmission Safety Rule
Workpaper Group:	235730 - GTSR Part 1 Replacements and Hydrotests
Unit Measure:	Miles of Pipe

Forecast Methodology:

Labor - Zero-Based

Labor costs are based off of project-specific estimates developed by SDG&E following the Association for the Advancement of Cost Engineering (AACE) estimating standards per industry practices. This method is most appropriate because each GTSR project is unique in scope, size, and complexity.

Non-Labor - Zero-Based

Non-labor costs are based off of project-specific estimates developed by SDG&E following the Association for the Advancement of Cost Engineering (AACE) estimating standards per industry practices. This method is most appropriate because each GTSR project is unique in scope, size, and complexity.

NSE - Zero-Based

Not Applicable

Units - Zero-Based

Miles of Pipe

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	23573.0
Category:	B. Gas Transmission Safety Rule
Category-Sub:	1. Gas Transmission Safety Rule
Workpaper Group	235730 - GTSR Part 1 Replacements and Hydrotests
Unit Measure:	Miles of Pipe

Summary of Adjustments to Forecast:

In 2025 $ (000)																		
	Base Forecast						Forecast Adjustments						Adjusted-Forecast					
Years	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	557	633	773	1,030	696	141	76	76	34	95	73	18	633	709	807	1,125	769	159
NLbr	8,994	10,220	12,474	15,713	11,245	2,271	0	0	0	0	0	0	8,994	10,220	12,474	15,713	11,245	2,271
NSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**9,551**	**10,853**	**13,247**	**16,743**	**11,941**	**2,412**	**76**	**76**	**34**	**95**	**73**	**18**	**9,627**	**10,929**	**13,281**	**16,838**	**12,014**	**2,430**
FTE	3.7	4.2	5.2	6.9	4.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	3.7	4.2	5.2	6.9	4.7	0.9
Units	0	2	5	9	1	0	0	0	0	0	0	0	0	2	5	9	1	0

Forecast Adjustment Details:

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2026	76	0	0	76	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2026 Total	**76**	**0**	**0**	**76**	**0.0**	**0**
2027	76	0	0	76	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2027 Total	**76**	**0**	**0**	**76**	**0.0**	**0**

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 23573.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group 235730 - GTSR Part 1 Replacements and Hydrotests
Unit Measure: Miles of Pipe

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2028	34	0	0	34	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2028 Total	**34**	**0**	**0**	**34**	**0.0**	**0**
2029	95	0	0	95	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2029 Total	**95**	**0**	**0**	**95**	**0.0**	**0**
2030	73	0	0	73	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2030 Total	**73**	**0**	**0**	**73**	**0.0**	**0**
2031	18	0	0	18	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2031 Total	**18**	**0**	**0**	**18**	**0.0**	**0**

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 23573.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 235730 - GTSR Part 1 Replacements and Hydrotests
Unit Measure: Miles of Pipe

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Recorded (Nominal $)*					
Labor	0	0	67	663	2,393
Non-Labor	0	0	2,597	10,637	41,199
NSE	0	0	0	0	0
Total	**0**	**0**	**2,664**	**11,300**	**43,592**
FTE	0.0	0.0	0.4	4.2	16.8
Units	0	0	0	0	0
Adjustments (Nominal $) **					
Labor	0	0	0	0	38
Non-Labor	0	0	0	0	158
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**196**
FTE	0.0	0.0	0.0	0.0	0.2
Units	0	0	0	0	6
Recorded-Adjusted (Nominal $)					
Labor	0	0	67	663	2,432
Non-Labor	0	0	2,597	10,637	41,357
NSE	0	0	0	0	0
Total	**0**	**0**	**2,664**	**11,300**	**43,788**
FTE	0.0	0.0	0.4	4.2	17.0
Units	0	0	0	0	6
Vacation & Sick (Nominal $)					
Labor	0	0	9	90	356

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 23573.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 235730 - GTSR Part 1 Replacements and Hydrotests
Unit Measure: Miles of Pipe

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**9**	**90**	**356**
FTE	0.0	0.0	0.1	0.6	2.8
Units	0	0	0	0	0
Escalation to 2025$					
Labor	0	0	4	33	0
Non-Labor	0	0	146	467	0
NSE	0	0	0	0	0
Total	**0**	**0**	**150**	**501**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Recorded-Adjusted (Constant 2025$)					
Labor	0	0	80	786	2,788
Non-Labor	0	0	2,743	11,104	41,357
NSE	0	0	0	0	0
Total	**0**	**0**	**2,823**	**11,890**	**44,144**
FTE	0.0	0.0	0.5	4.8	19.8
Units	0	0	0	0	6

* After company-wide exclusions of Non-GRC costs
** Refer to "Detail of Adjustments to Recorded" page for line item adjustments
Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 23573.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 235730 - GTSR Part 1 Replacements and Hydrotests
Unit Measure: Miles of Pipe

Summary of Adjustments to Recorded:

In Nominal $(000)					
Years	**2021**	**2022**	**2023**	**2024**	**2025**
Labor	0	0	0	0	38
Non-Labor	0	0	0	0	158
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**196**
FTE	0.0	0.0	0.0	0.0	0.2
Units	0	0	0	0	6

Detail of Adjustments to Recorded in Nominal $:

Year	Labor	NLbr	NSE	Total	FTE	Units
2021	0	0	0	0	0.0	0
Explanation:	Added unit measure and count information.					
2021 Total	0	0	0	0	0.0	0
2022	0	0	0	0	0.0	0
Explanation:	Added unit measure and count information.					
2022 Total	0	0	0	0	0.0	0

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 23573.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 235730 - GTSR Part 1 Replacements and Hydrotests
Unit Measure: Miles of Pipe

Year	Labor	NLbr	NSE	Total	FTE	Units
2023	0	0	0	0	0.0	0
Explanation:	Added unit measure and count information.					
2023 Total	0	0	0	0	0.0	0
2024	0	0	0	0	0.0	0
Explanation:	Added unit measure and count information.					
2024 Total	0	0	0	0	0.0	0
2025	38	158	0	196	0.2	0
Explanation:	Adjustment to incorporate historical GTSR Project related costs into the appropriate workpaper.					
2025	0	0	0	0	0.0	6
Explanation:	Adjustment created to include unit measure.					
2025 Total	38	158	0	196	0.2	6

Note: Totals may include rounding differences.

Beginning of Workpaper Sub Details for
Workpaper Group 235730

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 23573.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 235730 - GTSR Part 1 Replacements and Hydrotests
Workpaper Detail: 235730.001 - GTSR Replacements and Hydrotests
Unit Measure: Miles of Pipe

In-Service Date: Not Applicable

Description:

Workpaper detail reflects a portfolio of GTSR Part 1 Replacements and Hydrotests Projects to be executed. See supplemental workpapers for project specific information (Ex. SDGE-06-WP-S, Volume I).

Forecast In 2025 $(000)

Years	2026	2027	2028	2029	2030	2031
Labor	499	49	0	72	101	159
Non-Labor	7,071	348	0	1	1,252	2,271
NSE	0	0	0	0	0	0
Total	**7,570**	**397**	**0**	**73**	**1,353**	**2,430**
FTE	2.9	0.4	0.0	0.4	0.6	0.9
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 23573.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 235730 - GTSR Part 1 Replacements and Hydrotests
Workpaper Detail: 235730.002 - GTSR-SL49-24-Hydrotest
Unit Measure: Miles of Pipe

In-Service Date: 09/30/2027

Description:

Workpaper detail reflects costs associated with the GTSR Supply Line 49-24 Hydrotest Project. See supplemental workpaper for project specific information (Ex. SDGE-06-WP-S, Volume I).

Forecast In 2025 $(000)

Years	2026	2027	2028	2029	2030	2031
Labor	53	369	0	0	0	0
Non-Labor	770	5,451	0	0	0	0
NSE	0	0	0	0	0	0
Total	**823**	**5,820**	**0**	**0**	**0**	**0**
FTE	0.3	2.2	0.0	0.0	0.0	0.0
Units	0	2	0	0	0	0

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 23573.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 235730 - GTSR Part 1 Replacements and Hydrotests
Workpaper Detail: 235730.003 - GTSR-SL49-18-Sec 1 North
Unit Measure: Miles of Pipe

In-Service Date: 06/30/2028

Description:

Workpaper detail reflects costs associated with the GTSR Supply Line 49-18 Sec 1 North Hydrotest Project. See supplemental workpaper for project specific information (Ex. SDGE-06-WP-S, Volume I).

Forecast In 2025 $(000)

Years	2026	2027	2028	2029	2030	2031
Labor	40	54	267	0	0	0
Non-Labor	566	984	3,973	0	0	0
NSE	0	0	0	0	0	0
Total	**606**	**1,038**	**4,240**	**0**	**0**	**0**
FTE	0.2	0.2	1.7	0.0	0.0	0.0
Units	0	0	2	0	0	0

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 23573.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 235730 - GTSR Part 1 Replacements and Hydrotests
Workpaper Detail: 235730.004 - GTSR-SL49-18-Sec 2 Central
Unit Measure: Miles of Pipe

In-Service Date: 09/30/2028

Description:

Workpaper detail reflects costs associated with the GTSR Supply Line 49-18 Sec 2 Central Hydrotest Project. See supplemental workpaper for project specific information (Ex. SDGE-06-WP-S, Volume I).

Forecast In 2025 $(000)

Years	2026	2027	2028	2029	2030	2031
Labor	27	48	272	0	0	0
Non-Labor	386	696	4,275	0	0	0
NSE	0	0	0	0	0	0
Total	**413**	**744**	**4,547**	**0**	**0**	**0**
FTE	0.2	0.3	1.8	0.0	0.0	0.0
Units	0	0	3	0	0	0

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 23573.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 235730 - GTSR Part 1 Replacements and Hydrotests
Workpaper Detail: 235730.005 - GTSR-SL49-18-Sec 3 South
Unit Measure: Miles of Pipe

In-Service Date: 03/31/2029

Description:

Workpaper detail reflects costs associated with the GTSR Supply Line 49-18 Sec 3 South Hydrotest Project. See supplemental workpaper for project specific information (Ex. SDGE-06-WP-S, Volume I).

Forecast In 2025 $(000)

Years	2026	2027	2028	2029	2030	2031
Labor	14	49	155	146	0	0
Non-Labor	201	714	2,447	2,194	0	0
NSE	0	0	0	0	0	0
Total	**215**	**763**	**2,602**	**2,340**	**0**	**0**
FTE	0.1	0.3	1.0	0.9	0.0	0.0
Units	0	0	0	3	0	0

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 23573.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 235730 - GTSR Part 1 Replacements and Hydrotests
Workpaper Detail: 235730.006 - GTSR-SL49-16-HYDROTEST-NORTH
Unit Measure: Miles of Pipe

In-Service Date: 03/31/2029

Description:

Workpaper detail reflects costs associated with the GTSR Supply Line 49-16 North Hydrotest Project. See supplemental workpaper for project specific information (Ex. SDGE-06-WP-S, Volume I).

Forecast In 2025 $(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	39	43	265	0	0
Non-Labor	0	566	674	3,974	0	0
NSE	0	0	0	0	0	0
Total	**0**	**605**	**717**	**4,239**	**0**	**0**
FTE	0.0	0.2	0.3	1.6	0.0	0.0
Units	0	0	0	1	0	0

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 23573.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 235730 - GTSR Part 1 Replacements and Hydrotests
Workpaper Detail: 235730.007 - GTSR-SL49-16-HYDROTEST-SOUTH
Unit Measure: Miles of Pipe

In-Service Date: 09/30/2029

Description:

Workpaper detail reflects costs associated with the GTSR Supply Line 49-16 South Hydrotest Project. See supplemental workpaper for project specific information (Ex. SDGE-06-WP-S, Volume I).

Forecast In 2025 $(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	52	48	549	0	0
Non-Labor	0	745	758	8,236	0	0
NSE	0	0	0	0	0	0
Total	**0**	**797**	**806**	**8,785**	**0**	**0**
FTE	0.0	0.3	0.3	3.4	0.0	0.0
Units	0	0	0	5	0	0

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 23573.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 235730 - GTSR Part 1 Replacements and Hydrotests
Workpaper Detail: 235730.008 - GTSR-SL49-16-RPL Section 1
Unit Measure: Miles of Pipe

In-Service Date: 09/30/2030

Description:

Workpaper detail reflects costs associated with the GTSR Supply Line 49-16 Section 1 Replacement Project. See supplemental workpaper for project specific information (Ex. SDGE-06-WP-S, Volume I).

Forecast In 2025 $(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	49	22	93	668	0
Non-Labor	0	716	347	1,308	9,993	0
NSE	0	0	0	0	0	0
Total	**0**	**765**	**369**	**1,401**	**10,661**	**0**
FTE	0.0	0.3	0.1	0.6	4.1	0.0
Units	0	0	0	0	1	0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
24575A - Valve Rule

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 24575.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 24575A - Valve Rule
Unit Measure: Valves

Summary of Results (Constant 2025 $ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast					
Years		**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	Zero-Based	0	0	0	0	0	0	0	376	393	331	434
Non-Labor	Zero-Based	0	0	0	0	0	0	0	5,945	5,945	4,955	6,365
NSE	Zero-Based	0	0	0	0	0	0	0	0	0	0	0
Total		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6,321**	**6,338**	**5,286**	**6,799**
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.0	2.6
Units	Zero-Based	0	0	0	0	0	0	0	1	1	1	1

Business Purpose:

Compliance with PHMSA amended 49 CFR Parts 192 and 195 through the publication of the Pipeline Safety: Requirement of Valve Installation and Minimum Rupture Detection Standards Final Rule (Valve Rule).

Physical Description:

These costs support execution of Valve Rule compliance projects, which include the installation of rupture mitigation valves (RMVs) on newly constructed or entirely replaced natural gas transmission pipeline segments with nominal diameters of six inches or greater. The work involves evaluating pipeline segment characteristics, installing remotely or automatically operable valves to enable rapid isolation in the event of a rupture, and integrating the valves into existing control and monitoring systems. In addition, annual systemwide risk analyses are performed to identify segments where RMV installation is warranted based on evolving risk factors, operating conditions, and regulatory requirements, thereby enhancing public safety and reducing potential consequences of pipeline failures. Detailed information is contained in the supplemental workpaper (Ex. SDGE-06-WP-S, Volume I).

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	24575.0
Category:	B. Gas Transmission Safety Rule
Category-Sub:	1. Gas Transmission Safety Rule
Workpaper Group:	24575A - Valve Rule
Unit Measure:	Valves

Project Justification:

The valve enhancements are compliance driven and mitigate the risk of pipeline ruptures and enable a faster response time should a failure occur due to natural forces (e.g., natural disasters, fires, earthquakes, landslides), third-party damage, vandalism, or other causes.

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	24575.0
Category:	B. Gas Transmission Safety Rule
Category-Sub:	1. Gas Transmission Safety Rule
Workpaper Group:	24575A - Valve Rule
Unit Measure:	Valves

Forecast Methodology:

Labor - Zero-Based

A zero-based forecasting methodology was selected, driven by company labor factors including project management and oversight, construction management, supervision, operations, and other support functions. A valve estimate was developed, informed by historical costs and execution experience from comparable projects, and applied across the forecast due to the similarity of valve work. The estimate reflects the full scope of work for valve activities, from planning and development through installation, testing, commissioning, and close-out.

Non-Labor - Zero-Based

A zero-based forecasting methodology was applied for non-labor costs, based on company cost drivers such as construction, materials, equipment, engineering, and other support services. A valve estimate was developed using historical costs and execution experience from comparable projects and applied across the forecast due to the similarity of valve work. The estimate captures the full scope of work for valve activities, from planning and development through installation, testing, commissioning, and close-out.

NSE - Zero-Based

Not Applicable

Units - Zero-Based

Valves

Beginning of Workpaper Sub Details for
Workpaper Group 24575A

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 24575.0
Category: B. Gas Transmission Safety Rule
Category-Sub: 1. Gas Transmission Safety Rule
Workpaper Group: 24575A - Valve Rule
Workpaper Detail: 24575A.001 - Valve Rule
Unit Measure: Valves

In-Service Date: Not Applicable

Description:

Activities include installation of remotely or automatically operable valves to enable rapid isolation in the event of a rupture, and integrating the valves into existing control and monitoring systems.

Forecast In 2025 $(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	376	393	331	434
Non-Labor	0	0	5,945	5,945	4,955	6,365
NSE	0	0	0	0	0	0
Total	**0**	**0**	**6,321**	**6,338**	**5,286**	**6,799**
FTE	0.0	0.0	2.4	2.4	2.0	2.6
Units	0	0	1	1	1	1

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Category: C. Compressor Station Compliance Program
Workpaper: VARIOUS

Summary for Category: C. Compressor Station Compliance Program

In 2025$ (000) Incurred Costs

	Adjusted-Recorded	Adjusted-Forecast					
	2025	2026	2027	2028	2029	2030	2031
Labor	0	0	0	3,772	0	0	0
Non-Labor	0	0	0	83,248	0	0	0
NSE	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**87,020**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	3.5	0.0	0.0	0.0

Workpapers belonging to this Category:

204760 Moreno Compressor Modernization							
Labor	0	0	0	0	0	0	0
Non-Labor	0	0	0	0	0	0	0
NSE	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unit Measure: N/A							
Units	0	0	0	0	0	0	0
20476A 20476A - Moreno Compressor Modernization							
Labor	0	0	0	3,772	0	0	0
Non-Labor	0	0	0	83,248	0	0	0
NSE	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**87,020**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	3.5	0.0	0.0	0.0
Unit Measure: N/A							
Units	0	0	0	0	0	0	0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
20476A - 20476A - Moreno Compressor Modernization

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 20476.0
Category: C. Compressor Station Compliance Program
Category-Sub: 1. Compressor Station Compliance Program
Workpaper Group: 20476A - 20476A - Moreno Compressor Modernization
Unit Measure: N/A

Summary of Results (Constant 2025 $ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast					
Years		**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	Zero-Based	0	0	0	0	0	0	0	3,772	0	0	0
Non-Labor	Zero-Based	0	0	0	0	0	0	0	83,248	0	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0	0	0	0
Total		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**87,020**	**0**	**0**	**0**
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0
Units	Zero-Based	0	0	0	0	0	0	0	0	0	0	0

Business Purpose:

The Moreno Compressor Station Modernization Project supports the safe and reliable operation of SDG& E's transmission system by upgrading aging compression assets at the Moreno facility. Work includes major overhauls, rebuilds, and equipment replacements for compressors, engines, and associated systems to maintain operational integrity and compliance with regulatory requirements.

Physical Description:

The project involves completing modernization activities at the Moreno Compressor Station, including installation of new compressor equipment, emissions control systems, and supporting mechanical and electrical infrastructure. These upgrades are necessary to support safe operations, maintain reliability, and meet environmental and regulatory standards for transmission system performance. Further detail on forecasted costs for the MCM Project that exceed the authorized cost cap is contained in supplemental workpaper (Ex. SDGE-06-WP-S, Volume II).

Project Justification:

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	20476.0
Category:	C. Compressor Station Compliance Program
Category-Sub:	1. Compressor Station Compliance Program
Workpaper Group:	20476A - 20476A - Moreno Compressor Modernization
Unit Measure:	N/A

Compressor station assets require ongoing capital maintenance and modernization to prevent equipment failures that could disrupt gas supply continuity. Deferring these upgrades increases the risk of unplanned outages, which could impact transmission reliability and system resiliency. Modernization also supports compliance with air quality regulations and operational safety.

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	20476.0
Category:	C. Compressor Station Compliance Program
Category-Sub:	1. Compressor Station Compliance Program
Workpaper Group:	20476A - 20476A - Moreno Compressor Modernization
Unit Measure:	N/A

Forecast Methodology:

Labor - Zero-Based

The TY 2028 labor forecast was developed using a zero-based methodology to reflect the labor required to complete the remaining activities within the project's original scope that extend beyond the authorized cost cap . Labor requirements were developed from the defined work sequence for project management, engineering, construction oversight, and commissioning, rather than extrapolated from historical averages.

Non-Labor - Zero-Based

The TY 2028 non-labor forecast was developed using a zero-based methodology and includes costs for materials, contractor services, equipment, emissions-control systems, and supporting infrastructure required to complete the remaining elements of the project's original scope beyond the authorized cost cap. These costs were developed based on current project requirements rather than historical trends.

NSE - Zero-Based

There are no non-standard escalation expenses in this workpaper.

Units - Zero-Based

There are no specific units in this workpaper.

Beginning of Workpaper Sub Details for
Workpaper Group 20476A

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 20476.0
Category: C. Compressor Station Compliance Program
Category-Sub: 1. Compressor Station Compliance Program
Workpaper Group: 20476A - 20476A - Moreno Compressor Modernization
Workpaper Detail: 20476A.001 - Moreno Compressor Modernization
Unit Measure: N/A

In-Service Date: 08/31/2028

Description:

Covers the remaining work associated with the project's originally approved scope beyond the cost-cap authorization, which includes upgrades to aging compressor units and auxiliary equipment and modifications necessary to comply with current safety, environmental, and regulatory requirements.

Forecast In 2025 $(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	3,772	0	0	0
Non-Labor	0	0	83,248	0	0	0
NSE	0	0	0	0	0	0
Total	**0**	**0**	**87,020**	**0**	**0**	**0**
FTE	0.0	0.0	3.5	0.0	0.0	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Category: D. Control Center Modernization
Workpaper: VARIOUS

Summary for Category: D. Control Center Modernization

In 2025$ (000) Incurred Costs

	Adjusted-Recorded	Adjusted-Forecast					
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	389	985	1,240	1,166	818	828	843
Non-Labor	2,475	2,427	3,391	3,400	2,891	2,891	2,891
NSE	0	0	0	0	0	0	0
Total	**2,864**	**3,412**	**4,631**	**4,566**	**3,709**	**3,719**	**3,734**
FTE	1.5	5.8	7.4	7.5	5.0	5.0	5.0

Workpapers belonging to this Category:

215740 CCM Distribution							
Labor	245	567	839	781	818	828	843
Non-Labor	1,704	1,927	2,891	2,891	2,891	2,891	2,891
NSE	0	0	0	0	0	0	0
Total	**1,949**	**2,494**	**3,730**	**3,672**	**3,709**	**3,719**	**3,734**
FTE	0.5	3.3	5.0	5.0	5.0	5.0	5.0
Unit Measure: SCADA Enhanced Sites							
Units	0	1	3	3	3	3	3
A04190 CCM Transmission							
Labor	144	418	401	385	0	0	0
Non-Labor	771	500	500	509	0	0	0
NSE	0	0	0	0	0	0	0
Total	**915**	**918**	**901**	**894**	**0**	**0**	**0**
FTE	1.0	2.5	2.4	2.5	0.0	0.0	0.0
Unit Measure: Installations							
Units	0	50	50	52	0	0	0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
215740 - CCM Distribution

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 21574.0
Category: D. Control Center Modernization
Category-Sub: 1. Control Center Modernization
Workpaper Group: 215740 - CCM Distribution
Unit Measure: SCADA Enhanced Sites

Summary of Results (Constant 2025 $ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast					
Years		**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	Zero-Based	0	22	228	287	245	567	839	781	818	828	843
Non-Labor	Zero-Based	0	454	1,086	1,734	1,704	1,927	2,891	2,891	2,891	2,891	2,891
NSE	Zero-Based	0	0	0	0	0	0	0	0	0	0	0
Total		**0**	**475**	**1,314**	**2,020**	**1,949**	**2,494**	**3,730**	**3,672**	**3,709**	**3,719**	**3,734**
FTE	Zero-Based	0.0	0.1	0.7	0.8	0.5	3.3	5.0	5.0	5.0	5.0	5.0
Units	Zero-Based	0	0	0	1	0	1	3	3	3	3	3

Business Purpose:

The purpose of the Control Center Modernization (CCM) project is to enhance system safety and reliability by expanding SDG& E's ability to monitor and control its gas network. These costs represent the continuation of work authorized in D.19-09-051 and D.24-12-074 to enhance Distribution Regulator Stations (DRS) with remote monitoring and control capabilities, enabling Gas Control to respond more quickly to abnormal operating conditions and improve system resiliency.

Physical Description:

The CCM project plans to enhance a total of 7 regulator stations with remote control and SCADA capabilities during the forecast period of 2026-2028. These enhancements will enable real-time monitoring and control from Gas Control, improving operational flexibility and supporting system safety and reliability objectives. Detailed information about updates to the DRS project is contained in supplemental workpaper (Ex. SDGE-06-WP-S, Volume III).

Project Justification:

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	21574.0
Category:	D. Control Center Modernization
Category-Sub:	1. Control Center Modernization
Workpaper Group:	215740 - CCM Distribution
Unit Measure:	SCADA Enhanced Sites

Enhancing Distribution Regulator Stations with remote control and SCADA capabilities provides Gas Control with real-time visibility into system conditions, including dynamic pressures and flows, and the ability to control select stations remotely. These capabilities improve operational responsiveness and help mitigate the risk of over- or under-pressure events, which are critical safety concerns in the gas distribution network.

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	21574.0
Category:	D. Control Center Modernization
Category-Sub:	1. Control Center Modernization
Workpaper Group:	215740 - CCM Distribution
Unit Measure:	SCADA Enhanced Sites

Forecast Methodology:

Labor - Zero-Based

The TY 2028 labor forecast was developed using a zero-based methodology to reflect the specific scope and resource requirements for this work. Forecasted labor costs were built from the ground up based on anticipated activities, including project management, engineering, permitting, site acquisition, and configuration, rather than relying on historical averages. This approach ensures the forecast accurately represents the expected effort for the planned enhancements.

Non-Labor - Zero-Based

The TY 2028 non-labor forecast was developed using a zero-based methodology to reflect the specific scope and cost components required for this work. Forecasted non-labor costs were built from the ground up based on anticipated activities and materials associated with enhancing regulator stations, rather than relying on historical averages. This approach ensures the forecast accurately represents expected expenditures for the planned enhancements.

NSE - Zero-Based

There are no non-standard escalation expenses in this workpaper.

Units - Zero-Based

The TY 2028 unit forecast was developed using a zero-based methodology to reflect the planned scope of work for enhancing regulator stations. Forecasted unit counts were determined based on the specific number of stations scheduled for enhancement during the forecast period, rather than relying on historical averages. This approach ensures the forecast accurately represents the expected work levels for the planned program.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	21574.0
Category:	D. Control Center Modernization
Category-Sub:	1. Control Center Modernization
Workpaper Group	215740 - CCM Distribution
Unit Measure:	SCADA Enhanced Sites

Summary of Adjustments to Forecast:

In 2025 $ (000)																		
	Base Forecast						Forecast Adjustments						Adjusted-Forecast					
Years	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	499	749	749	749	749	749	68	90	32	69	79	94	567	839	781	818	828	843
NLbr	1,927	2,891	2,891	2,891	2,891	2,891	0	0	0	0	0	0	1,927	2,891	2,891	2,891	2,891	2,891
NSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**2,426**	**3,640**	**3,640**	**3,640**	**3,640**	**3,640**	**68**	**90**	**32**	**69**	**79**	**94**	**2,494**	**3,730**	**3,672**	**3,709**	**3,719**	**3,734**
FTE	3.3	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	5.0	5.0	5.0	5.0	5.0
Units	1	3	3	3	3	3	0	0	0	0	0	0	1	3	3	3	3	3

Forecast Adjustment Details:

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2026	68	0	0	68	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2026 Total	**68**	**0**	**0**	**68**	**0.0**	**0**
2027	90	0	0	90	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2027 Total	**90**	**0**	**0**	**90**	**0.0**	**0**

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 21574.0
Category: D. Control Center Modernization
Category-Sub: 1. Control Center Modernization
Workpaper Group 215740 - CCM Distribution
Unit Measure: SCADA Enhanced Sites

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2028	32	0	0	32	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2028 Total	**32**	**0**	**0**	**32**	**0.0**	**0**
2029	69	0	0	69	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2029 Total	**69**	**0**	**0**	**69**	**0.0**	**0**
2030	79	0	0	79	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2030 Total	**79**	**0**	**0**	**79**	**0.0**	**0**
2031	94	0	0	94	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2031 Total	**94**	**0**	**0**	**94**	**0.0**	**0**

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 21574.0
Category: D. Control Center Modernization
Category-Sub: 1. Control Center Modernization
Workpaper Group: 215740 - CCM Distribution
Unit Measure: SCADA Enhanced Sites

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Recorded (Nominal $)*					
Labor	0	15	190	242	214
Non-Labor	0	371	1,028	1,661	1,704
NSE	0	0	0	0	0
Total	**0**	**387**	**1,217**	**1,903**	**1,917**
FTE	0.0	0.1	0.6	0.7	0.4
Units	0	0	0	0	0
Adjustments (Nominal $) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	1	0
Recorded-Adjusted (Nominal $)					
Labor	0	15	190	242	214
Non-Labor	0	371	1,028	1,661	1,704
NSE	0	0	0	0	0
Total	**0**	**387**	**1,217**	**1,903**	**1,917**
FTE	0.0	0.1	0.6	0.7	0.4
Units	0	0	0	1	0
Vacation & Sick (Nominal $)					
Labor	0	2	26	33	31

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 21574.0
Category: D. Control Center Modernization
Category-Sub: 1. Control Center Modernization
Workpaper Group: 215740 - CCM Distribution
Unit Measure: SCADA Enhanced Sites

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**2**	**26**	**33**	**31**
FTE	0.0	0.0	0.1	0.1	0.1
Units	0	0	0	0	0
Escalation to 2025$					
Labor	0	4	12	12	0
Non-Labor	0	82	58	73	0
NSE	0	0	0	0	0
Total	**0**	**86**	**70**	**85**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Recorded-Adjusted (Constant 2025$)					
Labor	0	22	228	287	245
Non-Labor	0	454	1,086	1,734	1,704
NSE	0	0	0	0	0
Total	**0**	**475**	**1,314**	**2,020**	**1,949**
FTE	0.0	0.1	0.7	0.8	0.5
Units	0	0	0	1	0

* After company-wide exclusions of Non-GRC costs
** Refer to "Detail of Adjustments to Recorded" page for line item adjustments
Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 21574.0
Category: D. Control Center Modernization
Category-Sub: 1. Control Center Modernization
Workpaper Group: 215740 - CCM Distribution
Unit Measure: SCADA Enhanced Sites

Summary of Adjustments to Recorded:

In Nominal $(000)					
Years	**2021**	**2022**	**2023**	**2024**	**2025**
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	1	0

Detail of Adjustments to Recorded in Nominal $:

Year	Labor	NLbr	NSE	Total	FTE	Units
2021	0	0	0	0	0.0	0
Explanation:	Adjustment is to add the unit of measurement related to 2021 costs for this workpaper.					
2021 Total	0	0	0	0	0.0	0
2022	0	0	0	0	0.0	0
Explanation:	Adjustment is to add the unit of measurement related to 2022 costs for this workpaper.					
2022 Total	0	0	0	0	0.0	0

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 21574.0
Category: D. Control Center Modernization
Category-Sub: 1. Control Center Modernization
Workpaper Group: 215740 - CCM Distribution
Unit Measure: SCADA Enhanced Sites

Year	Labor	NLbr	NSE	Total	FTE	Units
2023	0	0	0	0	0.0	0
Explanation:	Adjustment is to add the unit of measurement related to 2023 costs for this workpaper.					
2023 Total	0	0	0	0	0.0	0
2024	0	0	0	0	0.0	1
Explanation:	Adjustment is to add the unit of measurement related to 2024 costs for this workpaper.					
2024 Total	0	0	0	0	0.0	1
2025 Total	0	0	0	0	0.0	0

Note: Totals may include rounding differences.

Beginning of Workpaper Sub Details for
Workpaper Group 215740

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: 21574.0
Category: D. Control Center Modernization
Category-Sub: 1. Control Center Modernization
Workpaper Group: 215740 - CCM Distribution
Workpaper Detail: 215740.001 - CCM Distribution
Unit Measure: SCADA Enhanced Sites

In-Service Date: Not Applicable

Description:

This activity includes enhancing Distribution Regulator Stations with SCADA capabilities which expands Gas Control 's ability to monitor and control these assets. This work supports improved real-time visibility, more efficient operations, and increased operational awareness onto the distribution system.

Forecast In 2025 $(000)

Years	2026	2027	2028	2029	2030	2031
Labor	567	839	781	818	828	843
Non-Labor	1,927	2,891	2,891	2,891	2,891	2,891
NSE	0	0	0	0	0	0
Total	**2,494**	**3,730**	**3,672**	**3,709**	**3,719**	**3,734**
FTE	3.3	5.0	5.0	5.0	5.0	5.0
Units	1	3	3	3	3	3

Note: Totals may include rounding differences.

Beginning of Workpaper Group
A04190 - CCM Transmission

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: A0419.0
Category: D. Control Center Modernization
Category-Sub: 1. Control Center Modernization
Workpaper Group: A04190 - CCM Transmission
Unit Measure: Installations

Summary of Results (Constant 2025 $ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast					
Years		**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	Zero-Based	0	0	1	14	144	418	401	385	0	0	0
Non-Labor	Zero-Based	0	0	6	344	771	500	500	509	0	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0	0	0	0
Total		**0**	**0**	**7**	**359**	**915**	**918**	**901**	**894**	**0**	**0**	**0**
FTE	Zero-Based	0.0	0.0	0.0	0.1	1.0	2.5	2.4	2.5	0.0	0.0	0.0
Units	Zero-Based	0	0	0	0	0	50	50	52	0	0	0

Business Purpose:

The purpose of the Control Center Modernization (CCM) project is to enhance system safety and reliability by expanding SDG& E's visibility and control capabilities across the gas network. The costs presented here reflect the continuation of work authorized in D.19-09-051 and D.24-12-074 to deploy methane sensors in evacuation-challenged High Consequence Areas (HCAs).

Physical Description:

The CCM project plans to install a total of 152 methane sensors in evacuation-challenged High Consequence Areas (HCAs) during the forecast period of 2026–2028. These sensors will be strategically deployed across the gas network to enhance monitoring and control capabilities, supporting system safety and reliability objectives. Detailed information about updates to the HCA Methane Sensor project is contained in supplemental workpaper (Ex. SDGE-06-WP-S, Volume III).

Project Justification:

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	A0419.0
Category:	D. Control Center Modernization
Category-Sub:	1. Control Center Modernization
Workpaper Group:	A04190 - CCM Transmission
Unit Measure:	Installations

The installation of methane sensors under the Control Center Modernization (CCM) initiative supports SDG& E's commitment to advancing system safety and operational resilience through digital transformation. These strategically deployed sensors are designed to detect methane leaks in evacuation-challenged HCAs and transmit real-time alarms to Gas Control. This capability enhances SDG& E's ability to rapidly identify and respond to abnormal operating or emergency conditions, aligning with the objectives established in previous GRC proceedings.

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	A0419.0
Category:	D. Control Center Modernization
Category-Sub:	1. Control Center Modernization
Workpaper Group:	A04190 - CCM Transmission
Unit Measure:	Installations

Forecast Methodology:

Labor - Zero-Based

The TY 2028 labor forecast was developed using a zero-based methodology because historical labor figures reflect the prior sensor design and associated processes. The version of methane sensor presented in this GRC is more cost- effective than the previous version. Labor numbers have been analyzed from previous installations and adjusted to account for the updated installation schedule and updated asset type. The labor forecast consists of costs for internal resources for project management, planning, permitting, site acquisition, and configuration.

Non-Labor - Zero-Based

The TY 2028 non-labor forecast was developed using a zero-based methodology because historical costs reflect the prior sensor design. The updated methane sensor introduced in this GRC has a simplified design that reduces site preparation and associated project requirements, resulting in lower per-unit costs compared to the previous version. The forecast is based on a per-unit cost multiplied by the annual number of targeted HCA methane sensor installations and includes per-site project management and related non-labor costs.

NSE - Zero-Based

There are no non-standard escalation expenses in this workpaper.

Units - Zero-Based

The TY 2028 unit forecast was developed using a zero-based forecast methodology as historical installation figures reflect the prior sensor design. The updated sensors have a streamlined installation process, requiring significantly fewer site modifications compared to the previous version, which reduces overall installation time.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	A0419.0
Category:	D. Control Center Modernization
Category-Sub:	1. Control Center Modernization
Workpaper Group	A04190 - CCM Transmission
Unit Measure:	Installations

Summary of Adjustments to Forecast:

In 2025 $ (000)																		
	Base Forecast						Forecast Adjustments						Adjusted-Forecast					
Years	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	368	358	369	0	0	0	50	43	16	0	0	0	418	401	385	0	0	0
NLbr	500	500	509	0	0	0	0	0	0	0	0	0	500	500	509	0	0	0
NSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**868**	**858**	**878**	**0**	**0**	**0**	**50**	**43**	**16**	**0**	**0**	**0**	**918**	**901**	**894**	**0**	**0**	**0**
FTE	2.5	2.4	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.4	2.5	0.0	0.0	0.0
Units	50	50	52	0	0	0	0	0	0	0	0	0	50	50	52	0	0	0

Forecast Adjustment Details:

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2026	50	0	0	50	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2026 Total	**50**	**0**	**0**	**50**	**0.0**	**0**
2027	43	0	0	43	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2027 Total	**43**	**0**	**0**	**43**	**0.0**	**0**

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	A0419.0
Category:	D. Control Center Modernization
Category-Sub:	1. Control Center Modernization
Workpaper Group	A04190 - CCM Transmission
Unit Measure:	Installations

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2028	16	0	0	16	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2028 Total	**16**	**0**	**0**	**16**	**0.0**	**0**
2029 Total	**0**	**0**	**0**	**0**	**0.0**	**0**
2030 Total	**0**	**0**	**0**	**0**	**0.0**	**0**
2031 Total	**0**	**0**	**0**	**0**	**0.0**	**0**

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	A0419.0
Category:	D. Control Center Modernization
Category-Sub:	1. Control Center Modernization
Workpaper Group:	A04190 - CCM Transmission
Unit Measure:	Installations

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Recorded (Nominal $)*					
Labor	0	0	1	12	126
Non-Labor	0	0	6	330	771
NSE	0	0	0	0	0
Total	**0**	**0**	**6**	**342**	**897**
FTE	0.0	0.0	0.0	0.1	0.9
Units	0	0	0	0	0
Adjustments (Nominal $) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Recorded-Adjusted (Nominal $)					
Labor	0	0	1	12	126
Non-Labor	0	0	6	330	771
NSE	0	0	0	0	0
Total	**0**	**0**	**6**	**342**	**897**
FTE	0.0	0.0	0.0	0.1	0.9
Units	0	0	0	0	0
Vacation & Sick (Nominal $)					
Labor	0	0	0	2	18

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: A0419.0
Category: D. Control Center Modernization
Category-Sub: 1. Control Center Modernization
Workpaper Group: A04190 - CCM Transmission
Unit Measure: Installations

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**2**	**18**
FTE	0.0	0.0	0.0	0.0	0.1
Units	0	0	0	0	0
Escalation to 2025$					
Labor	0	0	0	1	0
Non-Labor	0	0	0	14	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**15**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Recorded-Adjusted (Constant 2025$)					
Labor	0	0	1	14	144
Non-Labor	0	0	6	344	771
NSE	0	0	0	0	0
Total	**0**	**0**	**7**	**359**	**915**
FTE	0.0	0.0	0.0	0.1	1.0
Units	0	0	0	0	0

* After company-wide exclusions of Non-GRC costs
** Refer to "Detail of Adjustments to Recorded" page for line item adjustments
Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: A0419.0
Category: D. Control Center Modernization
Category-Sub: 1. Control Center Modernization
Workpaper Group: A04190 - CCM Transmission
Unit Measure: Installations

Summary of Adjustments to Recorded:

In Nominal $(000)					
Years	**2021**	**2022**	**2023**	**2024**	**2025**
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0

Detail of Adjustments to Recorded in Nominal $:

Year	Labor	NLbr	NSE	Total	FTE	Units
2021	0	0	0	0	0.0	0
Explanation:	Adjustment is to add the unit of measurement related to 2021 costs for this workpaper.					
2021 Total	0	0	0	0	0.0	0
2022	0	0	0	0	0.0	0
Explanation:	Adjustment is to add the unit of measurement related to 2022 costs for this workpaper.					
2022 Total	0	0	0	0	0.0	0

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: A0419.0
Category: D. Control Center Modernization
Category-Sub: 1. Control Center Modernization
Workpaper Group: A04190 - CCM Transmission
Unit Measure: Installations

Year	Labor	NLbr	NSE	Total	FTE	Units
2023	0	0	0	0	0.0	0
Explanation:	Adjustment is to add the unit of measurement related to 2023 costs for this workpaper.					
2023 Total	0	0	0	0	0.0	0
2024	0	0	0	0	0.0	0
Explanation:	Adjustment is to add the unit of measurement related to 2024 costs for this workpaper.					
2024 Total	0	0	0	0	0.0	0
2025 Total	0	0	0	0	0.0	0

Note: Totals may include rounding differences.

Beginning of Workpaper Sub Details for
Workpaper Group A04190

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: A0419.0
Category: D. Control Center Modernization
Category-Sub: 1. Control Center Modernization
Workpaper Group: A04190 - CCM Transmission
Workpaper Detail: A04190.001 - CCM Transmission
Unit Measure: Installations

In-Service Date: Not Applicable

Description:

Covers activities to deploy and integrate methane detection sensors within High Consequence Areas on the gas transmission system to enhance safety, leak detection, and operational response. This activity includes installation of methane sensing equipment, integration with centralized control and monitoring systems, and upgrades to associated communications and alarming capabilities

Forecast In 2025 $(000)

Years	2026	2027	2028	2029	2030	2031
Labor	418	401	385	0	0	0
Non-Labor	500	500	509	0	0	0
NSE	0	0	0	0	0	0
Total	**918**	**901**	**894**	**0**	**0**	**0**
FTE	2.5	2.4	2.5	0.0	0.0	0.0
Units	50	50	52	0	0	0

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Category: E. HP Distribution Assessments Execution
Workpaper: A34680

Summary for Category: E. HP Distribution Assessments Execution

In 2025$ (000) Incurred Costs

	Adjusted-Recorded	Adjusted-Forecast					
	2025	2026	2027	2028	2029	2030	2031
Labor	0	0	0	366	383	388	395
Non-Labor	0	0	0	4,782	4,782	4,782	4,782
NSE	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**5,148**	**5,165**	**5,170**	**5,177**
FTE	0.0	0.0	0.0	1.8	1.8	1.8	1.8

Workpapers belonging to this Category:

A34680 HP Distribution Assessments Execution							
Labor	0	0	0	366	383	388	395
Non-Labor	0	0	0	4,782	4,782	4,782	4,782
NSE	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**5,148**	**5,165**	**5,170**	**5,177**
FTE	0.0	0.0	0.0	1.8	1.8	1.8	1.8
Unit Measure: Miles							
Units	0	0	0	0	0	0	0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
A34680 - HP Distribution Assessments Execution

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: A3468.0
Category: E. HP Distribution Assessments Execution
Category-Sub: 1. HP Distribution Assessments Execution
Workpaper Group: A34680 - HP Distribution Assessments Execution
Unit Measure: Miles

Summary of Results (Constant 2025 $ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast					
Years		**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	Zero-Based	0	0	0	0	0	0	0	366	383	388	395
Non-Labor	Zero-Based	0	0	0	0	0	0	0	4,782	4,782	4,782	4,782
NSE	Zero-Based	0	0	0	0	0	0	0	0	0	0	0
Total		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,148**	**5,165**	**5,170**	**5,177**
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8
Units	Zero-Based	0	0	0	0	0	0	0	0	0	0	0

Business Purpose:

The Company intends to conduct integrity assessments on high priority, high-pressure (HP) distribution pipeline segments operating under 20% SMYS and above 60 psig. These pipelines, while regulated as distribution, operate near the upper stress limits and may share integrity threats common to vintage transmission lines, including manufacturing-related defects. Limited historical failure data and previously unavailable inspection methods have made it difficult to accurately assess risk for these higher-stress distribution segments. This effort will better characterize pipeline condition and integrity risk. A complete and accurate understanding of the pipeline system is fundamental to effective risk analysis and is critical to ensuring the safe and reliable operation of SDG&E's pipeline infrastructure.

Physical Description:

Advanced integrity assessment methods, such as robotic in-line inspection (ILI), will enable a more comprehensive understanding of the baseline condition and threats on HP distribution pipelines. A total of two HP distribution segments were identified for pre-assessment. Capital investments are required where pipeline retrofits are necessary to accommodate inspection tools which may include installation of pressure control fitting to provide entry and exit points for robotic tools, valve replacements, or fitting modifications for adequate internal clearance. Once the retrofit is

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	A3468.0
Category:	E. HP Distribution Assessments Execution
Category-Sub:	1. HP Distribution Assessments Execution
Workpaper Group:	A34680 - HP Distribution Assessments Execution
Unit Measure:	Miles

complete, the inspection tool is deployed, followed by direct examinations to validate the inspection findings and determine if any repairs are needed. Refer to the supplemental workpaper for more detail.

Project Justification:

Limited historical failure data and previously unavailable inspection methods have made it difficult to accurately assess risk for these higher -stress distribution segments. A complete and accurate understanding of the pipeline system is fundamental to effective risk analysis and is critical to the safe and reliable operation of SDG&E's pipeline infrastructure.

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	A3468.0
Category:	E. HP Distribution Assessments Execution
Category-Sub:	1. HP Distribution Assessments Execution
Workpaper Group:	A34680 - HP Distribution Assessments Execution
Unit Measure:	Miles

Forecast Methodology:

Labor - Zero-Based

Labor forecasts are established using a zero-based methodology, informed by historical cost and execution experience from comparable ILI projects, in support of high-pressure distribution assessment activities. Additional detail is provided in the supplemental workpaper.

Non-Labor - Zero-Based

Non-labor forecasts are established using a zero-based methodology, informed by historical cost and execution experience from comparable ILI projects, in support of high-pressure distribution assessment activities. Additional detail is provided in the supplemental workpaper.

NSE - Zero-Based

Not Applicable

Units - Zero-Based

No feasible units

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: A3468.0
Category: E. HP Distribution Assessments Execution
Category-Sub: 1. HP Distribution Assessments Execution
Workpaper Group A34680 - HP Distribution Assessments Execution
Unit Measure: Miles

Summary of Adjustments to Forecast:

In 2025 $ (000)																		
	Base Forecast						Forecast Adjustments						Adjusted-Forecast					
Years	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Labor	0	0	351	351	351	351	0	0	15	32	37	44	0	0	366	383	388	395
NLbr	0	0	4,782	4,782	4,782	4,782	0	0	0	0	0	0	0	0	4,782	4,782	4,782	4,782
NSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**5,133**	**5,133**	**5,133**	**5,133**	**0**	**0**	**15**	**32**	**37**	**44**	**0**	**0**	**5,148**	**5,165**	**5,170**	**5,177**
FTE	0.0	0.0	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8
Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Forecast Adjustment Details

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2026 Total	**0**	**0**	**0**	**0**	**0.0**	**0**
2027 Total	**0**	**0**	**0**	**0**	**0.0**	**0**
2028	15	0	0	15	0.0	0

Explanation: Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.

2028 Total	**15**	**0**	**0**	**15**	**0.0**	**0**
2029	32	0	0	32	0.0	0

Note: Totals may include rounding differences.

Area:	GAS MAJOR PROJECTS
Witness:	Devin K. Zornizer
Budget Code:	A3468.0
Category:	E. HP Distribution Assessments Execution
Category-Sub:	1. HP Distribution Assessments Execution
Workpaper Group	A34680 - HP Distribution Assessments Execution
Unit Measure:	Miles

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2029 Total	**32**	**0**	**0**	**32**	**0.0**	**0**
2030	37	0	0	37	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2030 Total	**37**	**0**	**0**	**37**	**0.0**	**0**
2031	44	0	0	44	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2031 Total	**44**	**0**	**0**	**44**	**0.0**	**0**

Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: A3468.0
Category: E. HP Distribution Assessments Execution
Category-Sub: 1. HP Distribution Assessments Execution
Workpaper Group: A34680 - HP Distribution Assessments Execution
Unit Measure: Miles

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Recorded (Nominal $)*					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Adjustments (Nominal $) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Recorded-Adjusted (Nominal $)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Vacation & Sick (Nominal $)					
Labor	0	0	0	0	0

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: A3468.0
Category: E. HP Distribution Assessments Execution
Category-Sub: 1. HP Distribution Assessments Execution
Workpaper Group: A34680 - HP Distribution Assessments Execution
Unit Measure: Miles

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Escalation to 2025$					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Recorded-Adjusted (Constant 2025$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0

* After company-wide exclusions of Non-GRC costs
** Refer to "Detail of Adjustments to Recorded" page for line item adjustments
Note: Totals may include rounding differences.

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: A3468.0
Category: E. HP Distribution Assessments Execution
Category-Sub: 1. HP Distribution Assessments Execution
Workpaper Group: A34680 - HP Distribution Assessments Execution
Unit Measure: Miles

Summary of Adjustments to Recorded:

In Nominal $(000)					
Years	**2021**	**2022**	**2023**	**2024**	**2025**
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0

Year	Labor	NLbr	NSE	Total	FTE	Units

Note: Totals may include rounding differences.

Beginning of Workpaper Sub Details for Workpaper Group A34680

Area: GAS MAJOR PROJECTS
Witness: Devin K. Zornizer
Budget Code: A3468.0
Category: E. HP Distribution Assessments Execution
Category-Sub: 1. HP Distribution Assessments Execution
Workpaper Group: A34680 - HP Distribution Assessments Execution
Workpaper Detail: A34680.001 - HP Distribution Assessments Execution
Unit Measure: Miles

In-Service Date: Not Applicable

Description:

Advanced integrity assessment methods such as robotic in-line inspection (ILI), will enable a more comprehensive understanding of the baseline condition and threats on HP distribution pipelines. A total of two HP distribution segments were identified for pre-assessment. Refer to supplemental workpaper for more detail.

Forecast In 2025 $(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	366	383	388	395
Non-Labor	0	0	4,782	4,782	4,782	4,782
NSE	0	0	0	0	0	0
Total	**0**	**0**	**5,148**	**5,165**	**5,170**	**5,177**
FTE	0.0	0.0	1.8	1.8	1.8	1.8
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group A34680

SDGE Capital HP Distribution Assessments Execution Supplemental Workpaper

Workpaper: A34680

Spend	2028	2029	2030	2031
Total Projected Spend	**$5,148,000**	**$5,165,000**	**$5,170,000**	**$5,177,000**
Capital Spend	$5,148,000	$5,165,000	$5,170,000	$5,177,000
Mileage	0	0	0	0

Note: The forecasted costs shown above are based on the total costs of the HP segments identified below and have been normalized across the GRC cycle.

Pipeline	Mileage	Suggested Tool	Labor	Non-Labor	Total
HP Segment A	1.8	Robotic	$ 901,527	$ 14,123,927	**$ 15,025,455**
HP Segment B	0.9	Robotic	$ 338,073	$ 5,296,473	**$ 5,634,545**
Total	**2.7**				

PROJECT COST ASSUMPTIONS
- Stopple Fitting Installations (Capital): ~$2MM per mile, including stopple installation and charging station; assumes 1 stopple per mile.
- Multiple Diameters: Each diameter requires its own robotic inspection and its own stopple retrofit (e.g., 3 diameters → 3 stopples ≈ $6MM capital).
- Plug Valve Consideration: If the stopple is at a plug valve, only one retrofit is required; if a separate excavation is needed, add ~$2MM.
- Back-to-Back Elbows (Capital) :~$2MM per mile, Efficiencies may exist if stopples are co-located, but the conservative assumption is to treat each elbow as a separate retrofit; applies only to true back-to-back elbows.
- Baseline Dig Assumptions: Assume 1 capital dig (~$800K), with costs driven by diameter and environmental constraints.
- Additional Capital costs are included for unplanned repairs that may be identified through the assessments, this fluctuates per project.
- Capital Labor 6% and Non-labor 94%.

Note: HP segments selected for forecast are preliminary and subject to change pending further evaluation.